

321.

THE
FLORAL MAGAZINE:



Figures and Descriptions

OF

POPULAR GARDEN FLOWERS.

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PLATE 1.

COUNTESS OF DERBY CAMELLIA.

Camellia japonica, var.

The new form of *Camellia japonica*, with which we introduce to our readers the FLORAL MAGAZINE, is one of sterling merit, not surpassed in beauty, nor in the qualities which, in the eyes of connoisseurs, constitute a fine variety in this family, by any that have preceded it. The variety, which is of Italian origin, was imported, in 1856, by Messrs. Veitch and Son, of the Royal Exotic Nursery, Chelsea, by whom it has been increased for sale. Our illustration is taken from a fine plant growing in Mr. Veitch's conservatory.

Among the Camellias already distributed in gardens, producing white-striped flowers, the variety now figured is remarkable on account of the bold character of its broad deep green glossy foliage, and of the size as well as purity and delicacy of colouring and fine form observable in its flowers. These flowers are, under favourable conditions of cultivation, as much as four inches in diameter, sufficiently full to form a rosette of pleasing outline, and made up of broad smooth-edged petals of remarkable substance, ranged in an imbricating manner, having a pure white ground, and marked with broad and well-defined but not crowded stripes or flakes of a delicate rose-colour; in the young flowers the petals assume a cup-like form, but when fully expanded the outer ones become moderately reflexed, so that a larger proportion of their surface is brought into view. Altogether it is one of the most beautiful varieties yet produced.

Like other plants which have been taken under the fostering care of the cultivator, the Camellia, in every state a beautiful

Plate 1.—CAMELLIA JAPONICA, var. COUNTESS OF DERBY: flowers large, quite double, white, distinctly and distantly flaked with rose-pink; outer petals reflexed.

plant, has gone on improving in quality until many of the kinds formerly held in estimation have become superseded. Of the class to which our illustration belongs, namely, those with white and blush-tinted flowers striped with various shades of red, we may mention as varieties possessing a high degree of merit:—

COUNTESS OF ORKNEY: large, finely cupped and imbricated, white striped with bright rose or carmine.

DE LA REINE: moderate size, imbricated or somewhat cupped while young, white faintly striped with light rose-colour.

DUCHESSE D'ORLÉANS: moderate size, finely imbricated, blush-white, striped with cerise and rosy-carmine.

JUBILEE: moderate size, imbricated, blush-white, with numerous deep rose-coloured stripes and pencilled markings.

PRINCE ALBERT (*Albertii*): moderate size, imbricated, with a peony-formed centre, blush-white, freely striped and splashed with deep rose.

TARGIONI: moderate size, imbricated or somewhat cupped, white delicately striped with light rose-colour.

The Camellia stands altogether unrivalled as a conservatory flower, having a bold and strongly-marked character which is pleasing to the eye even during those portions of the year when it is not in blossom, and becoming gorgeous in the extreme during the blooming period. Being hardy or nearly so, it may be cultivated with little expense, a cool greenhouse being all the protection necessary to produce it in the highest state of excellence; while, whether it is grown in pots or planted out in the border of a conservatory, but little trouble is involved in its cultivation, provided proper preparation has been made.

The best material for the growth of Camellias is formed by mixing about two parts of well-prepared turfy loam with one part of turfy heath-mould. This should form the staple of the compost, which may be further brought to a state suitable for use, by an admixture of about one-sixth part of pure silver sand, and another sixth part of small broken charcoal. The whole must be intimately blended. Thorough drainage, whether for pots or borders, is indispensable, as copious watering is necessary both in the growing season, and also when the flower-buds are approaching development.



PLATE 2.

DOUBLE FRINGED CHINESE PRIMROSE.

Primula prænitens, var. *atro-rosea plena*.

The Chinese Primrose is so thoroughly popular as to have obtained the title of “everybody’s flower,” which it well merits, its different forms being amongst the gayest of winter and early spring ornaments for the greenhouse or the window-garden. This designation, however, applies to the single-flowered plants, which can be readily and abundantly increased from seeds, rather than to the double forms, such as our figure represents.

The original form of the species, introduced to this country about forty years since, has the segments of its flower-limb smooth-edged with one terminal notch; and this is also the case with its white-flowered variety. The variety *fimbriata*, which made its appearance about a dozen years later, has larger flowers, frilled or notched around the margin; and at the present day these fringed sorts are those most esteemed. We may here notice incidentally, that in the case of the Chinese Primrose, the all but universal law adopted by florists is reversed. In most cases the varieties of popular flowers are prized in proportion as they possess smoothness and evenness of outline, and varieties having the edges of their flowers jagged as they are in the fringed Primroses, would be unceremoniously condemned; but in the case of the plant before us, the fringed forms are undoubtedly the favourites.

Of the original smooth-edged form, double-flowered varieties, both white and rose-coloured, have been for a score of years in cultivation, and have been held in great esteem as free and continuous blooming plants for conservatory ornamentation.

Plate 2.—PRIMULA PRÆNITENS (SINENSIS), var. ATRO-ROSEA PLENA: flowers large, double, deep rose-coloured, the margins of the segments fimbriated.

They will now, however, be supplanted by the fine double fringed variety represented in our Plate, which is as superior to the old double forms as the fringed forms of the single flowers are to those which preceded them. This variety is an accidental seedling sport, raised amongst a batch of the single fringed sort by Mr. W. Draycott, nurseryman, of Humberstone, near Leicester. The principal stock has passed into the hands of Mr. Turner, of the Royal Nursery, Slough, but the same form has also been flowered by Messrs. E. G. Henderson and Son, and Messrs. Low and Co. The plant from which our figure was made, was exhibited by Mr. Turner at the meeting of the Floral Committee of the Horticultural Society on March 8th in the present year, and was then awarded a first class certificate of merit.

The double-flowered Primulas have generally been regarded as somewhat difficult to cultivate, or at least requiring more than common care. Being increased from cuttings it is important to secure a sound and well-established plant at the commencement. Such a plant selected in spring, may be grown on in a warm and partially shaded greenhouse or pit where a moderately moist atmosphere can be maintained, and should be potted in a compost of good loam, pure leaf-mould, decomposed cow-dung, turfy peat, and silver sand in equal quantities, and having a few small nodules of charcoal intermixed. The plants must have the pots thoroughly drained, and be rather firmly potted. They may be repotted as often as the roots form in sufficient quantities, but too large a shift should not be given. When once well established the plants should receive abundant light and fresh air, and only require shading from strong sunshine. A dry, parching atmosphere, which stunts the growth of plants of this character, should be avoided. Water must never be supplied in excess. In hot summer weather a light but cool north aspect is best for them, and they may be freely ventilated. The plants thus grown, if in good health and vigour, will bloom profusely from October onwards through the winter months. They must however have a warm but not close greenhouse for their winter quarters, and be very cautiously watered at that season.

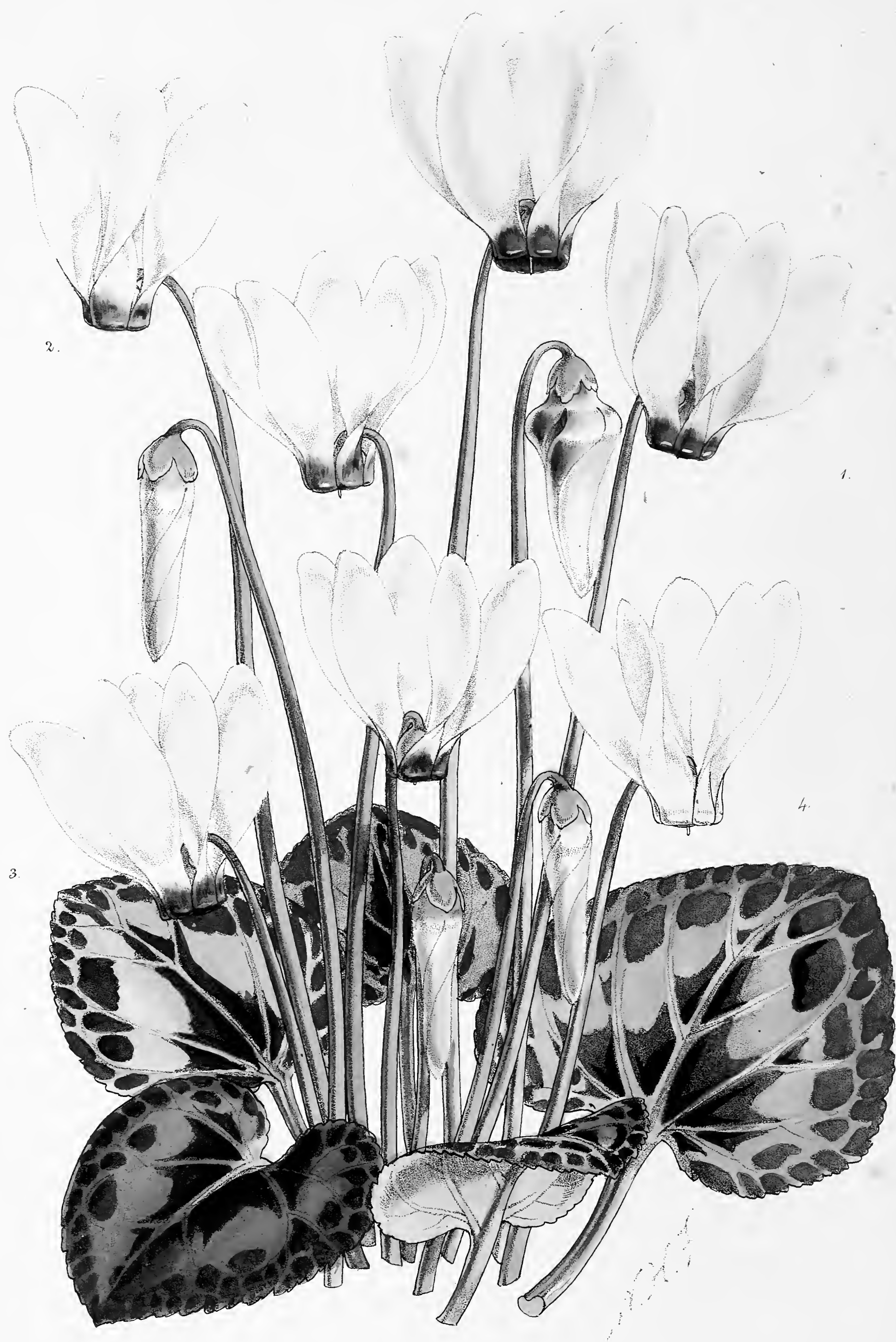


PLATE 3.

VARIETIES OF PERSIAN CYCLAMEN.

Cyclamen persicum, vars.

There are few more useful plants for the decoration of green-houses and drawing-room conservatories in the spring months than the well-known *Cyclamen persicum*, for in addition to a remarkably neat habit of growth, and a free-blooming disposition, its elegantly marbled foliage is at all times ornamental, and its flowers are not only beautiful in form and colour, but possess the additional recommendation of being most deliciously fragrant.

The Cyclamen is one of those plants which are most successfully propagated by means of seed. The Messrs. E. G. Henderson and Son, of the Wellington Road Nursery, St. John's Wood, who have paid particular attention to it and have raised large numbers from seed, have been enabled to select from their stock several distinct forms, affording a very pleasing diversity of colour in a flower which, on other grounds, is so deservedly popular. Some of these are represented in our Plate, and others we hope to illustrate on a future occasion. The peculiarities of form and colouring developed in the seedlings, are not so strongly fixed as to be perpetuated with certainty

Plate 3.—CYCLAMEN PERSICUM, varieties :—

Fig. 1. RUBRUM : flowers large, segments broad, obtuse, $1\frac{3}{8}$ inch long, clear Magenta-red or reddish rose-purple, with a purplish-red blotch at the eye or base of the segments.

Fig. 2. MARGINATUM : flowers rather large, segments broad, obtuse, $1\frac{1}{4}$ inch long, blush-white, of a more decided blush at the tips, the eye bright rose-crimson.

Fig. 3. MARGINATUM PURPUREUM : flowers resembling those of *marginatum*, but the eye or blotch is purple.

Fig. 4. PALLIDUM : flowers large, the segments broadish obtuse, $1\frac{3}{8}$ inch long, white with a pale-rose or deep blush-coloured eye.

in the offspring from the parent kinds, and no other ready means of increase being known, there is a limit to the extent to which they can be produced: hence it follows that in commerce, the names may be taken rather as representing groups of similar seedlings, than as indicating distinct individual varieties. The forms we figure are remarkable for the increased breadth and more obtuse outline of their curiously reflexed flower-lobes, as compared with the original species; and together with other varieties from the same source, are desirable stepping-stones for the further improvement of this charming flower—an improvement which no one who has witnessed the change wrought in other flowers by the perseverance of cultivators, can doubt will gradually be carried on to perfection.

The fragrance, which is one of the favourite qualities of the old Persian Cyclamen, is as variable in the seedlings, as the form and colour of the flowers, some being deliciously scented, and some quite odourless. This quality can only be determined when the seedlings reach a blooming state.

The Cyclamen is easily cultivated in a greenhouse or cool frame, where it can be kept from injury by frost. The soil should be good friable loam mixed with about one-fourth of clean leaf-mould and very rotten cow-dung in equal quantities, enough sand being added to the whole to prevent its getting set into a dense solid mass. In spring, after flowering is over, and risk from injury by frosts is past, they may be advantageously turned out of pots into a warm border, and left to the natural changes of weather, until about the latter end of August, when they will commence starting into growth. As soon as this is perceived they are to be taken up, and the old soil being removed, re-potted in well-drained pots, so that the tubers may be nearly covered with the soil, which is to be used in a dryish state. The pots should be kept in a cool frame or greenhouse, and the soil very sparingly watered until they have pushed out their leaves. When in full growth and bloom, they may have more water given to them. The plants are easily increased from seeds, which ripen freely, and should be sown as soon as the pulp of the fruit becomes soft to the touch.

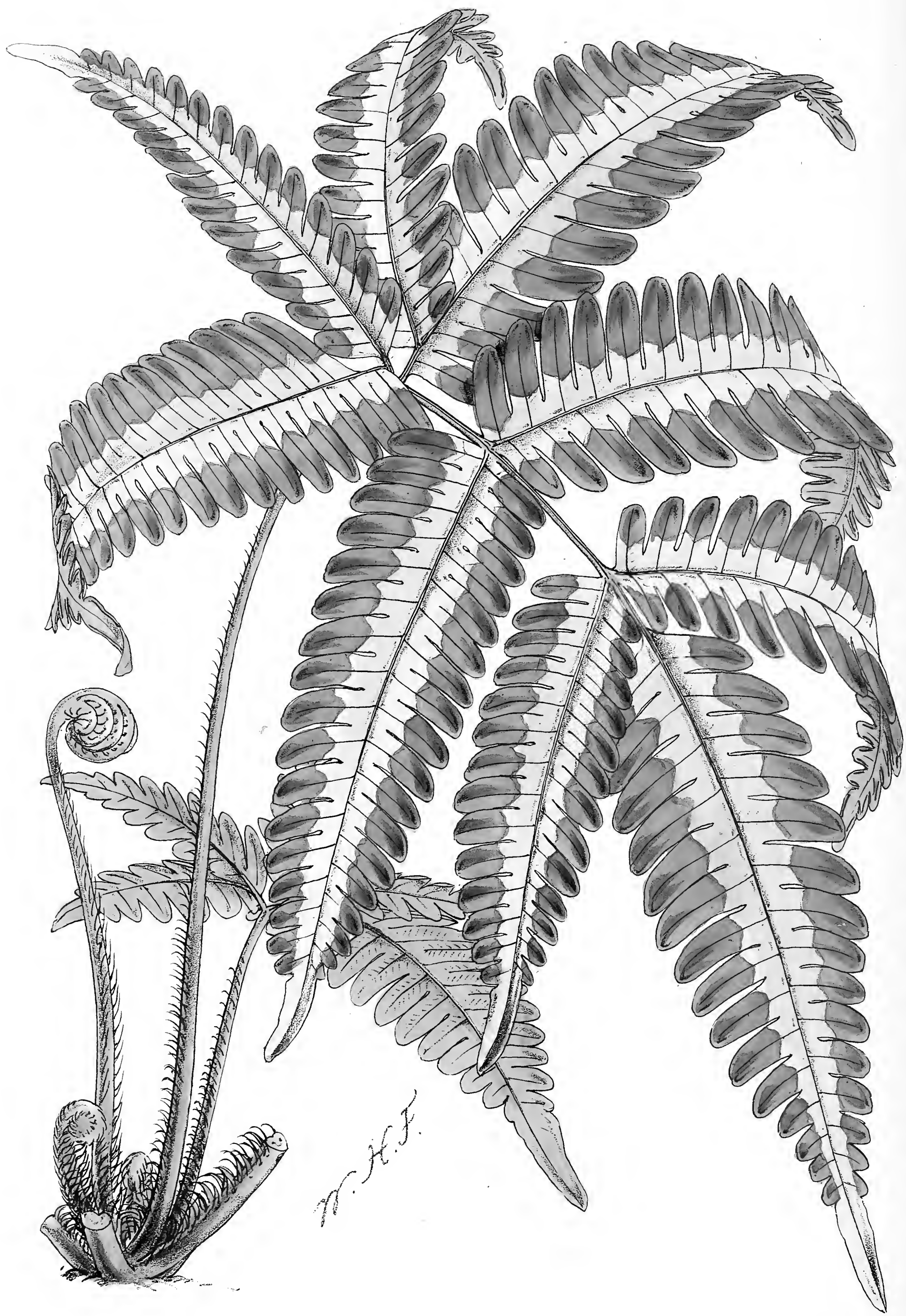


PLATE 4.

SILVER-VARIEGATED PTERIS.

Pteris argyræa.

This plant is interesting as being the first well-marked variegated Fern which found its way into our gardens. It is, moreover, a handsome and effective object, the broad well-defined conspicuous band or stripe of silvery-grey which runs along the centre of the pinnæ, giving it a distinct and novel character by which it contrasts well with the ordinary forms of Ferns and other hothouse plants. Our principal figure is, of necessity, considerably reduced from the natural size.

The plant forms a short erect caudex or stem, on which the bases of the fronds are just elevated above the ground-surface. The full-grown fronds are large, five feet or more in length, with long stoutish stipites or stalks, and they assume, as is common to many allied species, a gracefully arching form, spreading out on all sides. The stipites are clothed with scales near the base, and form about half the length of the frond, the other half consisting of the broad expanded leafy portion. This leafy part is ovate in outline, or somewhat pentangular from the development of two posterior branches, and in the full-grown plant measures about two and half feet across the base, and about the same in length from the top of the stipes to the point. In division, the fronds are what is technically termed pedately pinnate-pinnatifid: that is, they are first divided into distinct pinnæ, which pinnæ are again divided not quite down to their central rib into small contiguous divisions called seg-

Plate 4.—PTERIS ARGYRÆA: fronds pedately pinnate-pinnatifid, segments bluntly linear-oblong, falcate ($1\frac{1}{4}$ inch long), spinulose on the rachides above, the terminal ones caudate, greyish-white along the base, forming a broad silvery stripe down the centre of the pinnæ.

P. (pyrophylla) ARGYRÆA *Moore, Gard. Chron.* 1859, 671.

ments : hence pinnate-pinnatifid ; but the lowermost pinnæ each throw out a pinna-like branch on the posterior or hindmost side, and this renders them pedately pinnate-pinnatifid. Sometimes, in vigorous plants, the two or three lowermost pairs of pinnæ produce the posterior branch. The segments are upwards of an inch in length, bluntly linear-oblong and somewhat falcate in outline, the terminal one extending into a longish narrow tail-like point. Along the midrib or costa of these segments, on the upper side, is produced a series of little spinulose points. The fructification is marginal as in other species of *Pteris*.

The chief beauty of this new Fern consists in its markings, which are very bold and effective, and render it worth introduction to even the most select collection of stove Ferns. The central whitish stripe is produced by the base of each segment, for a quarter of an inch or more of its length, being of a silvery-grey instead of green like the rest of the frond, and this occurring on both sides of the midrib or rachis, the two pale-coloured portions blend together into a longitudinal white stripe about three-fourths of an inch in breadth.

In the form of its fronds and of their parts, and in some other technical peculiarities, this Fern quite agrees with a small group represented by *P. quadriaurita* ; and there can be no doubt, it belongs to those enlarged forms, named *pyrophylla*, related to this species, which some botanists unite with it, but which may, we think, be fairly kept distinct on account of their size. In a botanical point of view, our plant is a variegated variety of *P. pyrophylla*, but for all garden purposes the name *P. argyræa* or Silver-variegated *Pteris* will suffice.

This interesting species, or variety, was introduced from Central India by Messrs. Veitch and Son, of the Exeter and Chelsea Nurseries, and we are indebted to Messrs. Veitch for the opportunity of figuring it. It was exhibited during the past summer, before the Floral Committee of the Horticultural Society, and was awarded a first class certificate of merit. It has also received a similar award from the Royal Botanic Society.

The plant is a free-growing stove Fern, requiring a warm moist atmosphere, and may be cultivated in a soil of turfy peat mixed with small proportions in bulk of loam and sand.





PLATE 5.

VARIETIES OF AWNED HEATH.

Erica aristata, vars.

The two new forms of *Erica aristata* now figured are seedlings raised by Mr. W. Barnes, of the Camden Nursery, Camberwell. We are indebted to Messrs. Low and Co., of Upper Clapton, in whose possession they now are, for the opportunity of figuring them. We learn from Mr. Barnes that they are the progeny of some splendid hybrids raised a few years back between a variety called M'Nab's *aristata major* and the true *Sprengelii*. They are undoubtedly very fine varieties of one of the most lovely species of Heath; and we are heartily glad of the opportunity they afford us of recalling public attention to this beautiful family.

The variety *Barnesii* is remarkable for the size of its flowers, and the breadth of the square-ended conspicuous white segments of the limb, which are not pointed as shown in our illustration. These broad white segments, contrasting strongly with the deep blood-colour of the mouth of the tube, produce a very rich and showy appearance. The leaves range in ten lines along the branches, and are fleshy linear, unequally awned, fringed with callous teeth. The flowers grow in terminal whorls of about five together. The corollas are about an inch in length, the tube ventricose near the base, tapering upwards

Plate 5.—ERICA ARISTATA, varieties:—

Fig. 1. BARNESII: leaves five in a whorl, recurved, calloso-serrate, mucronate or awned; flowers in terminal whorls of 4-7; tube varnished red, deep sanguineous at the mouth; limb-segments white, very broad, truncate.

Fig. 2. VIRENS: leaves four in a whorl, spreading, calloso-serrate, mucronate; flowers in terminal whorls of 6-8; tube varnished deep brown-red at the mouth; limb-segments rounded, blush-white.

JUNE, 1860.

and again swollen close to the contracted mouth, of a pinkish salmon-red, having a bright appearance from being varnished; the mouth is deep sanguineous-red, or maroon; the segments of the limb broad and square-ended, five lines in breadth, clear white, a maroon-crimson ring being conspicuous at the mouth of the tube. This variety well merited a silver medal awarded to it at an exhibition of the Royal Botanic Society in March of the present year.

That called *virens* differs from the foregoing in the form and colouring of its flowers, as well as in their being more numerous in the heads. The leaves, in whorls of four, range in eight lines, and are short, linear, fleshy, recurved, and minutely callososerrate. The flowers grow in whorls of about eight together, and are of a bright varnished brick-red; the tube about an inch in length, broadest towards the base, less tapering but slightly swollen near the contracted mouth; the limb-segments are about four lines broad, rounded, spreading, of a blush-tinted white, with a broad and very deep-coloured reddish-brown ring conspicuous at the mouth of the tube. This variety received a bronze medal at the Royal Botanic Society's meeting above referred to; and was subsequently commended by the Floral Committee of the Horticultural Society, on account of its having a decided tendency to bloom in large trusses.

Heaths such as the present may be cultivated in cool airy greenhouses, where they can be well exposed to light. They are not difficult to manage, but require continual care, and will not bear neglect. Young healthy vigorous plants should be selected in spring or early summer, and carefully potted in well-drained moderate-sized pots, using sandy peat or heath mould as a compost. They must be watered just enough to keep the soil moistened: the roots must in fact never be exposed to drought, which is fatal to them, nor the earth kept continuously wet. In summer, an airy frame, or a sheltered well-drained bed of coal-ashes, provided with an awning to shield the plants from sun and heavy rains, is most suitable for them; and in winter they should have a light clean airy greenhouse. A damp close atmosphere at that season is fatal to them, and a dry parching condition of the atmosphere from excess of fire-heat scarcely less so.





PLATE 6.

VARIETIES OF CINERARIA.

Senecio cruenta, vars.

The highly decorative race of Cinerarias, formerly known only as producing commonplace purplish star-shaped flower-heads, about the size of the Daisy, has been so much improved under the hands of the cultivator as to have become one of the most useful and ornamental of early-blooming florist's flowers. The colours in this class of plants are however unfortunately, in too many cases, not to be reproduced by artificial means. Our Plate illustrates the degree of perfection, in form and colour, to which these showy plants have attained.

The variety called *Reynolds Hole* is a large rich purplish-crimson self, remarkable for the breadth and smooth surface of its florets, which are slightly reflexed, the disc or centre being of a dark purple. It was awarded a first-class certificate of merit at one of the spring meetings of the Royal Botanic Society on account of its fine colour as a self, as well as for the breadth and smoothness of the florets. It was raised by Mr. Turner, of Slough.

Bridesmaid is a free-growing, free-blooming, showy variety,

Plate 6.—*SENECIO CRUENTA*, varieties :—

Fig. 1. *REYNOLDS HOLE*: flower-heads large; florets remarkably broad, firm and smooth, rich purplish-crimson.

Fig. 2. *BRIDESMAID*: flower-heads large, flat; florets white, slightly tipped with rosy-crimson.

Fig. 3. *MARGINATA*: flower-heads medium size; florets smooth, rather concave, white, with a slight tip of deep rosy-lilac, forming a remarkably even border.

Fig. 4. *CONSTANCY*: flower-heads medium size; florets broad, reflexed, white in the lower half, deep rosy-purple in the upper.

Fig. 5. *GARIBALDI*: flower-heads large; florets broad, rather thin, bright lilac-purple, with a white base.

admirably suited for conservatory decoration. The flower-heads are above the average size, flat, and well formed, the florets white, with a shallow tip of light rosy-purple, forming a belt or margin to the ray, the white of the florets being nicely set off by the compact purple disc. It was raised by Mr. Wiggins, gardener to E. Beck, Esq., of Isleworth, and was awarded a second-class certificate by the Royal Botanic Society.

Marginata produces even and well-formed slightly concave flower-heads; the florets smooth and broad, white at the base, with a slight tip of rosy-lilac, and set around a small, compact, dark-coloured disc. The plant appears to be of delicate habit. It was raised by Mr. Wiggins, and was awarded a certificate of merit by the Royal Botanic Society, and was commended by the Floral Committee of the Horticultural Society on account of its form and even markings.

Constancy is an elegant and showy variety for decorative purposes. It is diffusely-branched and vigorous in growth, the florets somewhat convex, white in the lower half, and deep-tinted rosy-purple above, with a distinct purple disc. It was raised by Mr. Turner, of Slough, and has been commended by the Floral Committee of the Horticultural Society.

Garibaldi is a showy distinct kind, useful as a decorative plant on account of its distinct and pleasing colour. The habit is free; the flower-heads large, the florets rather thin in texture, but broad and flat, of a bright lilac-purple, white at the base, forming a ring around the purple disc. It was raised by Messrs. Perkins and Son, Nurserymen, of Coventry.

Cinerarias are easily grown in an ordinary greenhouse. After flowering, the plants should be cut down, and set in an airy place, where they will produce suckers; these are to be divided as soon as they are large enough, potted separately in small pots, and grown on for flowering. The seeds may be sown as soon as they ripen, the young plants being treated like those from suckers. A light rich compost should be used. The plants will not endure frost.



PLATE 7.

FORTUNE'S PRIMROSE.

Primula Fortunii.

This charming hardy or half-hardy herbaceous plant is evidently related to the Indian *Primula erosa*, with which it agrees in general features, as well as in its coarsely erose-dentate leaves, and its farinose stalks and calyces; but it differs in the absence of stellated hairs on the pedicels and calyx. It is also related to *P. denticulata*, but differs from that in some obvious particulars.

The plant from which our illustration was taken in April last was grown by Messrs. E. G. Henderson and Son, of the Wellington Road Nursery, St. John's Wood. A less developed specimen exhibited by them at one of the March meetings of the Royal Botanic Society was awarded a certificate in acknowledgment of its beauty. Its history seems obscure.

This Primrose closely resembles *P. denticulata* in habit, but it is more vigorous in growth, producing taller flower-scapes, and very much larger flower-heads, which consist of a prodigious number of flowers. The leaves, which are nearly the same shape as those of the common Primrose, and like those of that species have a wrinkled or rugose veiny surface, are sharply cut at the edges into very coarse irregular teeth, which are

Plate 7.—PRIMULA FORTUNII: plant dwarf, stemless; leaves oblong-obovate, tapering to the base, coarsely erose-dentate, rugose, strongly veined; scapes 2-3 times as long as the leaves, supporting a dense umbel of pedicellate flowers, the upper part as well as the pedicels and calyces farinose; outer involucre bracts short, ovate, inner ones twice as long, linear; calyx deeply 5-lobed, with erect lanceolate segments, glandular at the edges; corolla-tube slender, twice as long as the calyx, somewhat mealy outside near the top; the limb flat, spreading, of 6-10 two-lobed or bifid segments.

PRIMULA FORTUNII, *of gardens.*

again dentate with smaller acute teeth. The veins are prominent behind with a loose bladdery appearance. The scapes are from eight to twelve inches high, and support a dense flattish spreading head, consisting of an indefinite number of distinctly pedicellate flowers, which are nearly an inch in diameter, six- to ten-lobed, with emarginate or bifid lobes, of a delicate lilac, with a straw-coloured eye and tube. The upper part of the scape is farinosely powdered, as also are the pedicels and calyces. The outer bracts of the involucre are short ovate, but within these, seated among the bases of the pedicels, are others about half as long as the pedicels, linear, and often recurved. The pedicels are about half an inch long. The calyx is deeply five-lobed, with narrow-lanceolate erect segments, covered with a white mealy exudation, and indistinctly glandular at the edges of the divisions. The flowers have a slender yellow tube, fully half an inch long, spreading out at top into a flat limb of bifid or emarginate lobes, variable in number from six to ten, of a beautiful soft bluish-lilac, with a conspicuous pale-yellow eye.

Like the garden *P. denticulata*, our subject, though doubtless hardy enough to endure any amount of cold, is yet, on account of its early blooming habit, rather to be considered as a hardy frame plant, requiring much the same general treatment as the Auricula. It should be grown in a rich light loamy soil, in well-drained pots; and in summer may be allowed to stand in any airy open place sheltered from heavy rains and hot sunshine. In winter it should be kept in a dry airy cold frame, where it should receive but very moderate supplies of water, and very liberal supplies of fresh air; cold being less inimical to it than dampness either of the soil or atmosphere. In March and April it will furnish its lovely flower-heads, which retain their beauty for a considerable time. The winter should be a period of rest, with limited moisture. When symptoms of growth become evident, the plants should be fully exposed, in all fine weather. The plants are increased by division, or more abundantly by seeds, when these can be obtained: for which purpose free ventilation is essential during the blooming period.



PLATE 8.

ROLLISSON'S CATTLEYA.

Cattleya Rollissonii.

We learn from Messrs. Rollisson, of Tooting, with whom this plant flowered for the first time in February and March last, that it had been imported by them from the Organ Mountains of Brazil. It is a lovely plant, quite distinct in a cultural point of view from all others which have found their way into the rich Orchid collections of this country, and quite deserving of a place in even the most select among them.

Though distinct for all garden purposes, the plant now figured no doubt comes near to what Professor Reichenbach has called *Cattleya Wageneri*, but this again is specifically undistinguishable from *Cattleya Mossiæ*, of which both these and some others known in collections are therefore to be regarded as white or pale-flowered varieties. We are fortified in this view by the opinion of Professor Lindley, who has very kindly examined the flowers.

The pseudobulbs of *C. Rollissonii* are clavately fusiform, bearing a solitary, thick, oblong leaf. The scape is short, two-flowered. The flowers are smaller than in some other forms of *Mossiæ*, measuring about five inches long from the tip of the dorsal sepal to the point of the lip. The sepals are blush-white, lanceolate, upwards of two inches long, and about three-fourths of an inch wide. The petals are also blush-white, short but broad, of a bluntly roundish-ovate outline, suddenly narrowed

Plate 8.—CATTLEYA (*Mossiæ*) ROLLISSONII: habit and inflorescence as in *C. Mossiæ*; petals bluntly roundish-ovate, suddenly narrowed at the base into a short claw, slightly wavy-crisped, and somewhat denticulate, blush-white; lip blush-white, with a deep orange-yellow stain in the centre, and a pale-lilac belt near the front, the incurved side-lobes lilac, the margin somewhat wavy and denticulate in front.

into a short unguis, or claw; they are two and a half inches long and nearly two inches wide, somewhat wavy and crisped, as well as minutely denticulate at the margin, especially towards the point. The lip is obovate, emarginate, the sides rolled in over the column, about two and a half inches long and an inch and a half wide at the mouth, the margins moderately wavy-crisped, and toothed in front; the ground colour is blush-white, but the incurved sides are of a soft delicate blush-lilac; the centre is marked with a large, conspicuous, orange-yellow stain, which spreads out in front into a fan-shaped form, and just within the margin is a belt of the same soft lilac as occurs on the side-lobes. The lip is much less crisped than in the usual forms of *C. Mossiæ*, and is entirely without the rich coloured veining which is characteristic of the ordinary states of that plant. The column is green below, white above, about an inch and a quarter long, club-shaped or broader upwards, semiterete, with two sharp edges, which spread out into a narrow wing towards the top, and are extended on each side into an acute tooth at the point.

Cattleyas require while growing a moist heat of about 70° to 75° up to 85° by sun heat, in the day-time, this being reduced to 65°–70° by night, and a thorough rest in a drier atmosphere and lower temperature after they have completed their growth. At this latter period only just sufficient water to prevent shrivelling should be given. Even in the growing season these are not very thirsty subjects. Fresh air, warmed before reaching the plants, is to be given daily in all favourable weather; but no draughts of cold air must be permitted. These plants grow well in pots, planted among fibrous peat and potsherds, the pots being thoroughly drained. They should be planted rather above the rim of the pot.

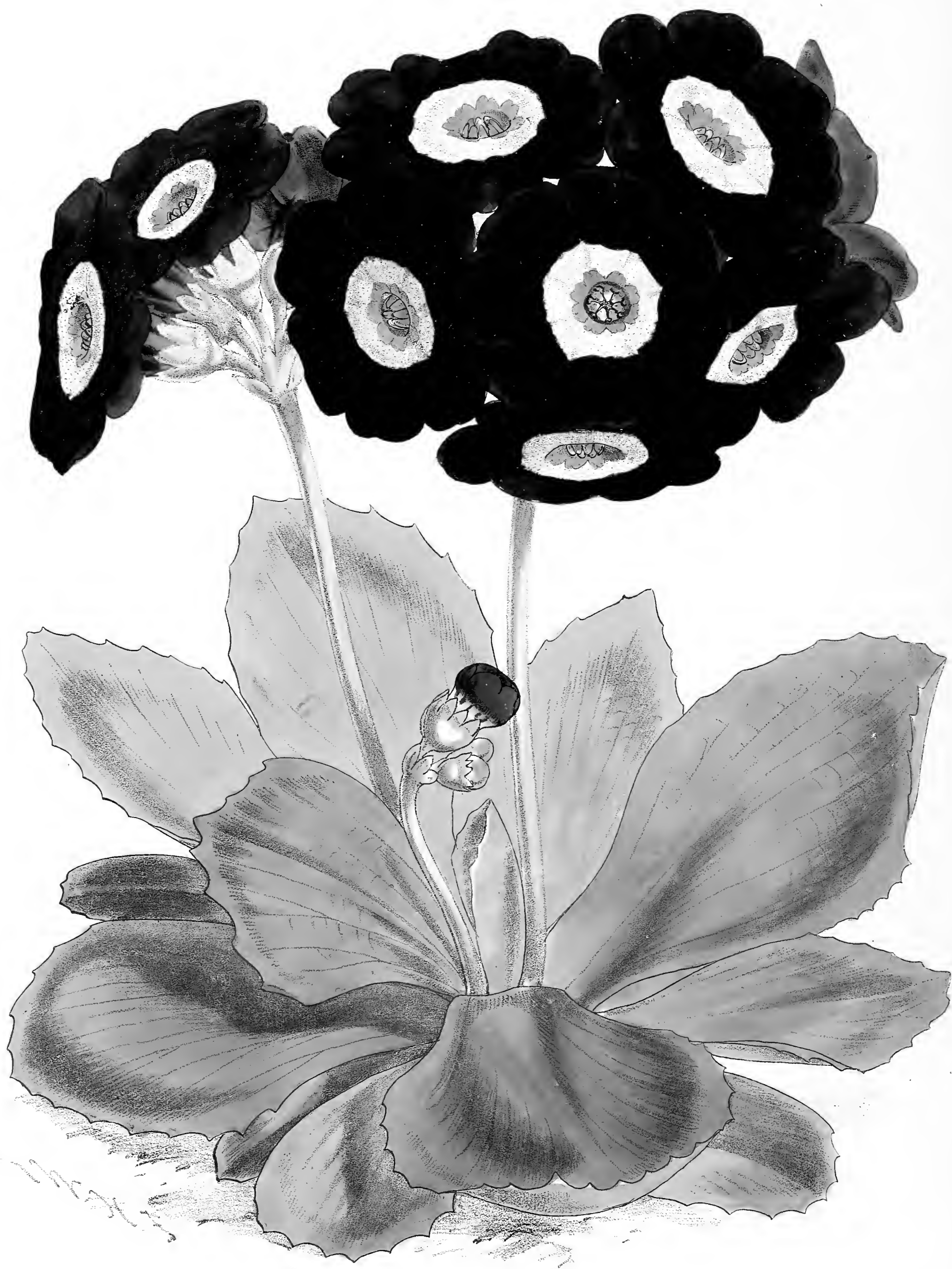


PLATE 9.

VOLUNTEER AURICULA.

Primula Auricula, var.

There are few garden flowers more beautiful than the Auricula, when in a well-bloomed vigorous condition; and this is especially true of that group of them known amongst florists as Selfs, or whole-coloured varieties,—those in which the whole of the belt formed by the marginal lobes is of one colour. The colours in the flowers of this group are usually dense, with a peculiar richness, which renders them exceedingly beautiful. The classes of white-edged, green-edged, and grey-edged flowers all have their admirers, and all comprise varieties of great beauty, with exceedingly curious markings and variegations; but for those outside the “fancy,” the rich-coloured selfs have undoubtedly the greatest charms. It is to this latter group that the subject of our illustration belongs.

Auricula Volunteer, which was raised in Scotland, by Mr. Richmond, made its first public appearance at one of the recent spring meetings of the Royal Botanic Society, at which it was rewarded by a first-class certificate. It was subsequently (April 26th) exhibited to the Floral Committee of the Horticultural Society, and obtained another first-class certificate; so that its merits have been freely recognized. On both occasions it was exhibited by Mr. Turner, of Slough, from whose plant our drawing was made. Beautiful as that illustration is, it fails to give—for no art can depict it—the peculiar richness of the natural flower.

The plant is of vigorous habit, producing bold massive trusses of flowers. These flowers are individually large, of a deep

Plate 9.—PRIMULA AURICULA, *var.* VOLUNTEER: flowers large, self-coloured, deep mulberry-purple; paste even, pure, and well-proportioned.

velvety mulberry-purple; the limb flat and even; the "paste," or white mealy ring around the eye, even, pure, dense, and in due proportion to the other parts of the flower. Altogether there is no doubt it is a variety of first-rate excellence.

Auriculas, though exceedingly ornamental plants, are not nearly so much grown as they might be by the lovers of gardening. They are not difficult to manage, even so as to satisfy the longings of the pure florist; but for the amateur, to whom our cultural hints are specially addressed, they are amongst the most manageable of hardy plants, really requiring not much beyond a cold frame, pure air, and routine cultivation. The following sketch may serve to illustrate this. In spring, after blooming, the plants need shelter from heavy rain and hot sun; but free air in a shady place, and genial showers, or, in default of them, liberal but not excessive waterings are their delight. About August they should be repotted, giving them larger pots, or merely renewing the soil, according to the number and condition of the roots. At this stage, and through the autumn and winter, they must have less water supplied, and for a short time after potting must be kept closed, or nearly so. In winter they require abundant ventilation in all fine weather, and shelter from severe frosts. In spring, after their growth is fairly renewed, they require again more liberal waterings; whilst a certain extra amount of watchfulness to secure shelter against cold winds and draught is necessary during the progress of the bloom. An airy north aspect is proper for them at all times. They grow in a soil of good mellow loam, enriched by the addition of thoroughly decayed cowdung in the proportion of one to two. The choicer varieties grown by florists receive somewhat greater attention as regards the minute details of their management.

These plants are increased by seeds to obtain new varieties, and by offshoots, which are sparingly produced, when the object is to perpetuate any favourite old kind.





PLATE 10.

LOBB'S RHODODENDRON.

Rhododendron Lobbianum.

This very handsome yellow Rhododendron, which was awarded a first-class certificate by the Floral Committee of the Horticultural Society, at its meeting on March 8th of the present year, as being one of the finest yellow-flowered kinds in cultivation, is intermediate in character between *R. javanicum* and *R. Brookeanum*, to which latter it was at first thought to belong. The flowers, indeed, with their oblong, retuse, distinct segments and yellow converging anthers, are those of *Brookeanum* altered in colour, but the entire habit and the foliage agree much more closely with *javanicum*, so that it is really distinct from both. This being so, the plant requires to be distinguished by some other name, and we find none more appropriate than that of Mr. Thomas Lobb, its discoverer, by whom it was sent from Penang to Messrs. Veitch and Son, of Exeter and Chelsea. It is a very handsome plant, and quite distinct in a garden point of view. We regret, since it has proved to be distinct, that the details of the flowers themselves were not more minutely examined.

The plant forms a comparatively slender shrub, with terete branches, scaly while young, and bearing the leaves chiefly on

Plate 10.—RHODODENDRON LOBBIANUM: branches terete, leafy towards the end; leaves thin fleshy, or subcoriaceous, flat, elliptic-lanceolate, somewhat acuminate, acute at the base, stalked, dark-green, with minute scales above, paler and finely punctate beneath, having little scales seated in the dots; umbels 6-8-flowered; calyx obsolete; corolla funnel-shaped below, with a dilated base, the segments of the spreading limb distinct, roundish-oblong, subundulate, retuse, pale buff-yellow; stamens about equalling the tube; the anthers convergent.

RHODODENDRON BROOKEANUM, *var. FLAVUM*, of gardens. *Proceed. Hort. Soc.* i. 161.

the upper parts of the annual shoots. The leaves are elliptic-lanceolate, tapered about equally to the base and apex, which latter is somewhat acuminate, dark-green above, paler beneath, both surfaces dotted with small scales, most evident on the under side, which appears and really is finely punctate, flat, rather fleshy than coriaceous, becoming flaccid when dry, the midrib not very prominent, five to seven inches long, and attached by petioles which are fully an inch in length. The flowers form loose terminal umbels, and are large, funnel-shaped below, with an expanding limb of roundish-oblong, retuse, spreading segments, which, not being overlapping at the base nor widened upwards, have an open space between them. The corollas are of a clear pale buff-tinted yellow, and the anthers are yellow and incurved, just appearing beyond the tube.

Compared with *R. Brookeanum*, with which its flowers agree in general appearance, this plant differs in being less robust, with the branches more slender and terete; in having stalked flat leaves, rather fleshy than coriaceous, elliptic-lanceolate, acute at the base, totally different in venation, the veins being also obscure and sunk; and in the flowers not being crispy. *R. Brookeanum* is a much stouter plant, its branches irregularly and bluntly angular, the leaves more equally distributed along the shoots, larger and more oblong, sessile or nearly so, acute, not acuminate, the sides elevated, the margins slightly revolute, and the point recurved, coriaceous, the principal veins spreading at a wider angle, and united so as to form near the edge a more evidently continuous though irregular line; the veins are prominent in the fresh state, and become more so on both surfaces when dry. *R. javanicum* has broader and shorter leaves and differently shaped flowers, the anthers of which do not converge but lie five on each side the style, and bear dark-purple anthers.

Being a native of Penang, this plant will require a stove temperature. It is a free-growing shrub, requiring to be potted in good peat-soil and to have a liberal share of pot-room as it progresses. In other respects it will require the ordinary management of stove-shrubs, among which its fine glossy foliage and handsome yellow flowers should procure for it a prominent position.



PLATE 11.

HYBRID TYDÆAS.

Tydæa formosa, etc.

The genus *Tydæa*, which is represented by the old *Achimenes picta*, and seems to be now generally admitted as a distinct group, consists of very handsome herbaceous hothouse plants, whose numerous progeny are raised with great facility, and sport into all manner of forms and colours. The subjects of our illustration are some of the most pleasing and ornamental cross-bred varieties we have met with. They were raised by Messrs. Parker and Williams, of Holloway, and are the result of a cross between the varieties named *Princess Charlotte* and *Leopard*, both handsomely spotted kinds. That called *formosa*, when exhibited in April last before the Floral Committee of the Horticultural Society, was commended by that body as a variety of improved habit and ornamental character. The variety *insignis* has not yet been exhibited.

The variety which bears the name *formosa* has erect growing stems, which continue to bloom in succession upwards, and in this way go on flowering for months: the plant just mentioned, though at the time it was exhibited in a very ornamental state, had been, it was said, producing flowers since the previous Oc-

Plate 11.—TYDÆA (hybrida)—

Fig. 1. FORMOSA: stem erect; leaves ovate, hairy; pedicels branched; calyx hairy, with broad leafy ovate lobes, having recurved edges; corolla-tube ($1\frac{1}{4}$ inch) crimson, ventricose below, clothed with red hairs, limb (1 inch) rosy-lake, dotted with crimson, sprinkled with hyaline hairs; stamens 4, the anthers coherent; stigma bifid; glands 5, distinct, truncate, subtridentate.

TYDÆA FORMOSA, *Moore, Proceed. Hort. Soc.* i. 199.

Fig. 2. INSIGNIS: flowers larger than in *formosa*, light crimson, with intense crimson spots confluent in longitudinal lines; tube light-red, paler and ventricose beneath, clothed with hyaline jointed hairs.

tober. The leaves are of moderate size, ovate, hairy. Several flowers grow from the axils of each leaf, the pedicels becoming once or twice branched, and flowering in succession. The segments of the calyx are ovate, of a leafy character, with their edges recurved. The corolla-tube is upwards of an inch long, ventricose, crimson, shaggy with red jointed hairs; the limb about an inch broad, two-lipped, five-lobed, the lobes rounded, rosy-lake, marked with numerous dots of deep crimson-purple in longitudinal lines, sprinkled with short hyaline hairs. Stamens four, coherent by their anthers, the filaments twisted; style glandular-pubescent, with a bifid stigma.

This new variety will prove to be a very ornamental plant, the flowers being particularly pleasing from their delicate rosy colour, and the contrast afforded by the crimson of the tube; they are also produced very abundantly, the branching pedicels yielding a succession of flowers, and the plants commencing to flower in a dwarf state.

The crimson-flowered variety named *insignis* is also a very handsome plant, quite distinct from, and perhaps more beautiful than *formosa*. The flowers are larger, the limb of the corolla being an inch and a half broad; the tube is clothed with transparent colourless hairs, and is light-red, paler beneath, while the limb is of a bright light-crimson, and dotted with roundish-oblong spots of a very deep crimson, which are ranged in longitudinal lines, and become nearly confluent. The inside of the tube is yellow.

Like other kindred plants, these should be grown in a close moist stove-pit, in a light compost of peat, leaf-mould, and sand, and under these circumstances require no especial care. The stems of many of the Tydæas naturally go on flowering and elongating, in consequence of which, after blooming for awhile, they become tall, and appear unsightly below. The remedy consists in removing the top, and planting it as a cutting in a brisk, close, moist heat, where it soon forms a new plant, while the old stem, thus cut back, will, under favourable circumstances, produce new flowering shoots from the base.





PLATE 12.

CRIMSON CAMELLIA.

Camellia japonica, var. punicea.

This fine new Camellia is a worthy companion of the delicate striped variety figured in our first Plate, and, like it, possesses all the points which constitute a first-rate kind. We are indebted to Messrs. Milne and Co., of Vauxhall, for the opportunity of figuring it, and we learn from them the following particulars of its history:—"The plant, which is an old one, was one of many seedlings raised by Messrs. Chandler and Sons, while proprietors of the Vauxhall Nursery, and had been planted out in an unfavourable position in a back corner of their Camellia-house, where it had struggled on without producing flowers until last year, when it bore one or two blooms, sufficient to show that it was a variety of great promise. The roots were accordingly cared for (it had before been growing in the pathway, of inferior hard-trodden soil); and the plant, having made good progress, produced in March, 1860, several fine blooms." One of these Mr. Fitch has happily represented in the accompanying figure.

The plant, though hitherto unfavourably circumstanced, is evidently one of vigorous habit, producing bold dark-green foliage, of a broadly oval or somewhat obovate outline, sharply acuminate, having a glossy surface, and an evidently serrated margin. The flowers are full-sized, double to the centre; the petals of dense firm texture, smooth and even, cupped in the earlier stages, the flower in this cupped condition being of the richest crimson, and exceedingly bright, so that the other bright-red

Plate 12.—CAMELLIA JAPONICA, *var. punicea*: flowers large, full, double, of the richest bright-crimson colour, the petals cupped in the young state, spreading when full-blown.

kinds appear dull by comparison. When more fully blown, the petals spread out flattish, without becoming much reflexed, and the colour gradually acquires a somewhat paler hue, but retains much of its brilliancy. We regard it as one of the finest double red Camellias in cultivation.

The class to which this variety belongs is represented by many beautiful kinds already known, amongst which this must occupy a foremost place. We may, however, here mention the following as other more accessible sorts worthy of universal cultivation.

BEALII (*Leeana superba*): large, evenly formed, finely cupped, and full, bright scarlet-crimson.

CORALLINA: a large loose flower, with peony-formed centre, but remarkably showy, and a grand conservatory plant, fine bright crimson-red.

EXIMIA: moderate size, full, imbricated, the outer petals reflexed, rich light-crimson.

FORMOSA: fine foliage, full, even, the petals cupped, never reflexed, rich crimson-scarlet.

MATHOTIANA: large and finely formed, bright rich crimson.

REINE DES FLEURS: full size, finely imbricated, and full bright crimson-scarlet.

With a history something like that of the present kind, Messrs. Milne and Co. also possess another neglected seedling raised by Messrs. Chandler. This, which is a light striped kind, of good form, and very finely marked, has been named *amæna*. We hope to be able to figure it when it has somewhat recovered from the weakened condition into which it had fallen.





PLATE 13.

DOUBLE-FLOWERED DISTICHOUS DAY-LILY.

Hemerocallis disticha, var. *flore-pleno*.

This very fine herbaceous plant was exhibited in May of the present year, before the Floral Committee of the Horticultural Society of London, by Messrs. Veitch and Son, of the Royal Exotic Nurseries, Exeter and Chelsea, and received a first-class certificate as a novelty of a highly meritorious character. It certainly is a very handsome plant, being of fine habit, and producing large and attractively coloured flowers. They have indeed the defect common to the family of Day-Lilies, namely, that of being individually but of short duration, but this is compensated for in some measure, by the succession which is produced during the blooming period.

The plant itself, which is of a strictly herbaceous perennial character, is of vigorous habit, producing a tuft of spreading or arching leaves, above which the flowers are elevated on a branching stem or scape. The leaves are distichous or two-ranked,—that is, ranged in two opposite series,—which is one of the peculiar features of this species; they are broadish-linear, somewhat channelled, narrowing to an acute point, and have, in fact, a broad grassy character. The flower-stem rises two feet or more in height, forking in the upper part, the branches producing several flowers in succession, one above the other at short intervals, each being placed in the axil of a small lance-shaped leafy bract. The flowers are large, measuring nearly or quite five inches across; and, unlike those of the parent species, which are single dividing into six lobes, they consist, as it were,

Plate 13.—HEMEROCALLIS DISTICHA, var. FLORE-PLENO: habit and foliage as in the species; perianth about quadrupled, forming a large spreading rosette of recurved segments.

in this new form, of several flowers set one within the other, the perianth being in this way quadrupled in the specimens we examined. The colour of the perianth is of a rich fulvous-orange, the segments being marked near the centre with a deeper brownish-crimson streak or blotch. Being thus gaily coloured, and full, they are of a very showy character.

The plant was received by Messrs. Veitch and Son from the Rev. W. Ellis, by whom it was brought to this country from the Mauritius. The parent form being a native of China, and hardy or nearly so, it may be presumed that this new form is likely to become a useful flower-garden plant, for mixed borders in sheltered situations, but its rarity has hitherto prevented its hardiness from being tested. We learn, however, from Mr. Veitch, that having been received from a warm country, his plant, which has been exhibited in flower during the present season, has been grown in an intermediate house, and that in cultivation, so far as yet known, it seems to require very much the same kind of treatment as an *Amaryllis*, except that being evergreen, it must not be left so completely dry in the resting period as is the case with that family. A generous soil, of open texture, will no doubt be congenial to it.

Sweet observes, when, nearly forty years ago, figuring the common or single form: "It is seldom to be met with in flower, and may therefore be considered a great rarity. We have been acquainted with it for several years, but never saw it flower before. Perhaps the reason is that we have generally seen it cultivated in the open ground. The present subject was grown in a pot, by which means it grows weaker, and perhaps that occasioned its flowering. It is a native of China, but grows freely in the open ground in the common garden soil, and propagates readily from suckers, which it produces in abundance."



PLATE 14.

PRESIDENT AZALEA.

Azalea indica, var.

The varieties of Indian Azalea,—one of the most brilliant of greenhouse spring-flowering shrubs,—are now so numerous, and so much improved in quality, that new forms must be possessed of no small degree of merit to commend themselves to the favour of connoisseurs. That we now figure has stood the severe criticism of the Horticultural Society's Floral Committee, and received from that body a first-class certificate, so that its high qualities have been sufficiently attested. We believe it fully deserves this acknowledgment of its merit.

Compared with the older kinds, this new variety has some resemblance to that called *Duke of Devonshire*, but it is a much improved form of that class of colours to which they both belong. The habit of the plant is all that can be desired, and the flowers are of large size, excellent in form, stout in substance, firm in texture, with a smooth surface, and of a very pleasing colour. This colour is a deep salmon-red, thickly and conspicuously spotted towards the base of the upper segments with deep crimson-red.

This fine variety was raised by Mr. Kinghorn, of the Sheen Nursery, Richmond, and has been exhibited for the first time during the present year.

The race of greenhouse or Indian Azaleas, as they are called, affords one of the most glowing and attractive series of spring flowers for the conservatory to be met with even in modern gardens. They are by no means costly, nor difficult of culture,

Plate 14.—AZALEA INDICA, var. PRESIDENT: leaves hairy, narrow-elliptic; calyx hairy and fringed; flowers large, smooth, and finely shaped, deep salmon-red, elegantly spotted with deeper red at the base of the upper segment.

and are therefore quite within the reach of all those who may be desirous of enlivening their greenhouses with decorative plants of sterling quality. Mr. Kinghorn, who is well known as a very successful grower, has furnished the following practical hints on the subject of cultivation:—

“Young plants, free and healthy, and not pot-bound, are preferable to commence with. The smaller-leaved varieties should be grafted on free stocks, but many of the fine varieties of recent introduction grow more freely than the sorts generally used for stocks, and these are better on their own roots.

“The best soil for all the varieties is fibry peat, with a good portion of silver sand, and some small pieces of broken pots mixed in. Clean or new pots should be used, and great care taken in draining them; some of the fibre of the peat may be used over the crocks to prevent the drainage from getting choked. About the month of June, or when the plants are in active growth, is the best time to re-pot. The soil should be made quite firm around the mass of roots, or the water applied will run through the new soil, leaving the old mass dry. Many plants have been lost or injured from this cause. During the season of growth, they delight in a close moist atmosphere; the syringe should be freely used, and the plants shaded from the mid-day sun. Whenever a plant has made its growth, it should be exposed by degrees to more air and light, and less water must be given at the roots, but the ball of earth must not be allowed to get dry. When water is given, therefore, it must be in sufficient quantity to moisten all the soil. It is of the first importance to the production of fine bloom to have the flower-buds set as soon as possible, as the quality of the bloom will be in proportion to the perfection of the ripening process, and the time that has elapsed from the setting or forming of the buds till their expansion.

“If the plants are sufficiently advanced to be stood out-of-doors for a few weeks previous to the autumn rains coming on, it will be of great benefit to them; but in exposed situations it will be necessary to protect the pots from the sun. A very convenient plan for effecting this, is to stand each pot within one a size larger.”





PLATE 15.

VARIETIES OF ORIENTAL HYACINTH.

Hyacinthus orientalis, vars.

The Hyacinth, which may well claim to be regarded as a household flower, has within the last few years been very much improved, the most decided improvements having taken place in the colour of the new varieties. There has also been wrought no small advance in form, as we hope to illustrate on an early occasion. In the meantime we offer portraits of two of the most remarkable in respect to colour. They are new but inexpensive kinds, every way worthy of general cultivation.

The variety called *Lina* affords the brightest colour yet produced: so brilliant, indeed, that at Messrs. Cutbush's exhibition, last spring, it stood out as the most glowing of all, amongst some five hundred selected from the finest varieties which are known. The bells are medium-sized, which is generally the case with the red varieties, but they are sufficiently numerous to form a bold compact spike of a bright griselle-crimson. It has, moreover, a vigorous constitution.

Argus is without doubt the most distinct and striking variety yet obtained. It produces a very fine spike of large bells, the varied and contrasted colours of which produce a charming effect. The tube is externally of a bright glossy cobalt-blue, the segments of the limb indigo-blue, and the eye clear white pencilled towards the outer edge. The plant is of a free and vigorous constitution, and the plant is altogether very attractive.

Plate 15.—HYACINTHUS ORIENTALIS, varieties:—

Fig. 1. LINA: perianth medium-sized, about three-fourths of an inch long, single, bright griselle-red.

Fig. 2. ARGUS: perianth large, about an inch long, single, indigo-blue; the tube bright cobalt; the eye white.

We are indebted to Messrs. Cutbush and Son, of Highgate, whose annual exhibition of Hyacinths is one of the metropolitan floral attractions of the season, for the opportunity of figuring the above, and also for the following account of the manner in which they succeed in bringing their plants to the high degree of perfection which has enabled them to carry off all the leading prizes at the spring exhibitions:—

“One of the most important points is to select bulbs well-ripened, of a firm and close texture: large size is not necessarily an advantage, for frequently the best flowers are produced by moderate-sized roots. They should be procured as soon as they arrive, and not after being exposed in baskets and shop-windows: indeed, they should not be taken out of the papers they are originally packed in until required for use. We keep ours in *close* boxes, excluding the air as much as possible; under which conditions they will not become deteriorated for three months after their arrival.

“For soil, well-seasoned turfy loam, mixed with a large proportion of decayed manure and silver sand, is preferable if it can be had; but any garden soil, not stiff, if well mixed with decayed vegetable refuse and manure from an old hotbed, and a good proportion of silver sand, will do for them; and if silver sand is not at hand, road sand or scrapings may be used instead. Avoid any soil that will run together hard. The larger the pots used the stronger the bloom-spike. We prefer those six inches across, and plant so as to leave one-third of the bulb exposed. The soil should be moderately moist when they are planted. The pots are to be set on a firm bed of coal-ashes, and the whole covered over to a depth of from six to nine inches with old tan or coal-ashes, previously inverting a small pot over the crown of the bulb to protect it from injury. They are to remain thus for a month or six weeks, so as to get the pots full of roots before the crown starts. This is one of the most essential points.

“The time for potting must be regulated by what is required; but a succession of blooms may be had from Christmas till the end of April, by commencing the second week in September, and continuing to pot a few every fortnight till the end of November.”

We must defer further instructions on this subject till another opportunity, which will shortly be afforded us.

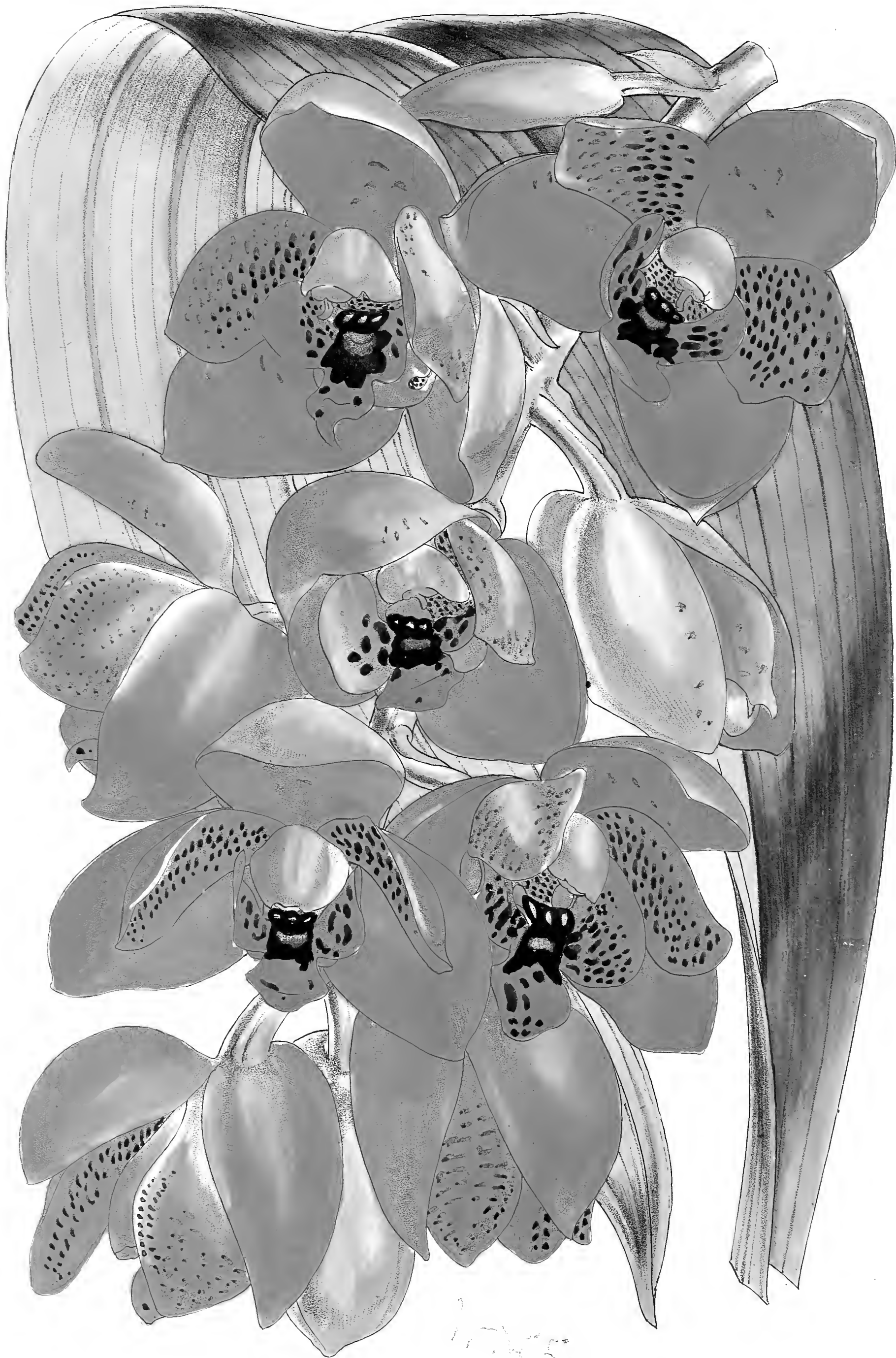


PLATE 16.

CLOSE-FLOWERED ACINETE.

Acineta densa.

We owe our thanks to Dr. Lindley for the opportunity of figuring this fine Orchid, from a noble specimen grown by Mr. Lawrence, gardener to the Lord Bishop of Winchester, at Farnham Castle. The plant had been presented to his Lordship by Mr. Skinner, some years since, and, as we learn from Mr. Lawrence, had made several previous abortive attempts to produce blossoms, occasioned, as he believes, by its requiring a very strong bulb to enable it to perfect its densely set spike of large fleshy flowers. The specimen was in great beauty at the latter end of March last, when exhibited at a meeting of the Royal Botanic Society.

In the pseudo-bulbs and foliage this species resembles *A. Barkeri*. The flower-scape is pendulous, about a foot long, and bearing about a dozen flowers, of which the terminal one opens first. The flowers are fleshy, at first of a waxy or pale-greenish yellow, becoming of a clearer but pale and rather dull yellow as they become older; they are large, and have a strong aromatic fragrance. The sepals are concave, the dorsal one elliptic, the lateral ones obliquely ovate, saccate at the base in front, spotless. The petals are of thinner texture, obovate acutish, thickly dotted over on the inside with red spots, having also a few dots on the outer surface. The lip is very fleshy in texture,

Plate 16.—ACINETA Densa: racemes dense, oblong; the scape and ovaries dotted with minute black scales; bracts about half as long as the ovaries; lip pouched or concave at the base, downy within, the metachil furnished with a pair of erect truncate side-lobes, and bearing a wart-like appendage, which is 3-toothed with the posterior angle sinuated; the epichil linear-oblong, warted at the base; back of the column downy.

ACINETA Densa, *Lindley, Paxt. Fl. Gard.* i. 91.

pouched at the base where it is downy within, and of a yellow colour dotted with red; above this is a thick quadrangular wart-like appendage, of a deep sanguineous-red, hollow beneath in the front, and with two lateral lobes, which are erect and meet the column, these lobes being truncately-rounded, deep-yellow, and marked with large red spots; the terminal portion or front lobe is oblong-obovate, bluntish, narrowed and spotted with red towards the base. In one flower, represented in the upper part of our figure, this terminal lobe was narrower and more oblong, as well as prolonged into an acuminate point. The lip may therefore be said to be pouched at the base, and three-lobed in front, with a central quadrate warty crest. The column is cream-coloured, downy at the back, and spotted with red inside at the base.

This plant appears to be a native of Costa Rica, and was imported in 1849. Dr. Lindley describes it as very near *A. Barkeri*, but differing "in having a more concave hypochil, the tooth of which is not notched at the point; an entire epichil, remarkably warted at the base; and the lateral lobes of the metachil not at all rounded, with the posterior angles of the intermediate appendage sinuous, and not extended into a long subulate process."

We learn from Mr. Lawrence, that the plant which has flowered under his care, has been grown in a basket, in a mixture of sphagnum and fibrous peat, and treated in every respect like the other species in cultivation.



PLATE 17.

DOUBLE CARNATION-STRIPED COLUMBINE.

Aquilegia vulgaris, var. caryophylloides.

This very pretty hardy perennial was exhibited by Messrs. Carter and Co., of Holborn, at a meeting of the Floral Committee of the Horticultural Society of London, in the month of June last, and was on that occasion rewarded by a certificate of commendation, as a distinct and handsome variety of the well-known Columbine. Messrs. Carter and Co. state that it was selected five or six years since, by one of their seed-growers, from a bed of mixed varieties, and has since that time been carefully grown and increased. They also state that it is found to come true from seeds, and that the seeds are quite distinct in appearance from those of the common forms of Columbine, being of a light green instead of black, as is usually the case.

It is, like its parent, a hardy herbaceous perennial, well adapted for flower-borders. The stems grow about three feet high, and are somewhat hairy, producing numerous erect flowering branches. The leaves are twice ternate, that is, twice divided by three, the leaflets being roundish three-lobed, and coarsely crenated. The flowers, which are large and showy, are multiple or full double, the petals being placed hose-in-hose fashion about three deep. The five sepals are ovate, clawed, and reflexed, coloured and striped like the rest of the flower. The spur-like petals are ten, double the normal number, each of them being again multiplied by the development of from two to four, usually three, hose-in-hose like, the one within the other, just projecting at the

Plate 17.—*AQUILEGIA VULGARIS, var. CARYOPHYLLOIDES*: habit and foliage as in the species; flowers large, double, with hose-in-hose petals, white, striped with dull crimson and purplish-red.

AQUILEGIA VULGARIS, var. CARYOPHYLLOIDES, Moore, in Proceedings of Horticultural Society, i. 229.

tips. The flowers are white, variously striped, the marking or flakes of colour being sometimes evenly distributed, but at other times more strongly developed in particular portions of the flower; these stripes are for the most part of a dull reddish-crimson, but with these are intermixed others of a reddish purple, producing a very effective variegation.

The Columbine is an easily-grown hardy perennial, requiring nothing beyond ordinary good garden soil, and a situation which is not too hot and dry in summer. It is increased abundantly from seeds, which we are informed in the case of our present subject, yield plants producing striped flowers. They should be sown as soon as they can be obtained in a ripened state, towards the end of the summer. The young plants have then time to become well established before winter sets in, and acquire vigour to enable them to develop their inflorescence in a free and healthy manner in the following year. In other respects the ordinary routine treatment of border flowers will be sufficient for them. Particular kinds may be increased to a moderate extent by division.

Besides the numerous forms of common Columbine, many of which are handsome plants, there are several very beautiful exotic species, which are worthy of being introduced into every garden where the luxury of a mixed flower border is indulged in. Some of the most showy and desirable of these are the following:—*Aquilegia alpina*, *Canadensis*, *eximia*, *formosa*, *fragrans*, *glandulosa* and its forms, *leptoceras*, *Skinneri*, etc. The family is well worth the attention of hybridizers.

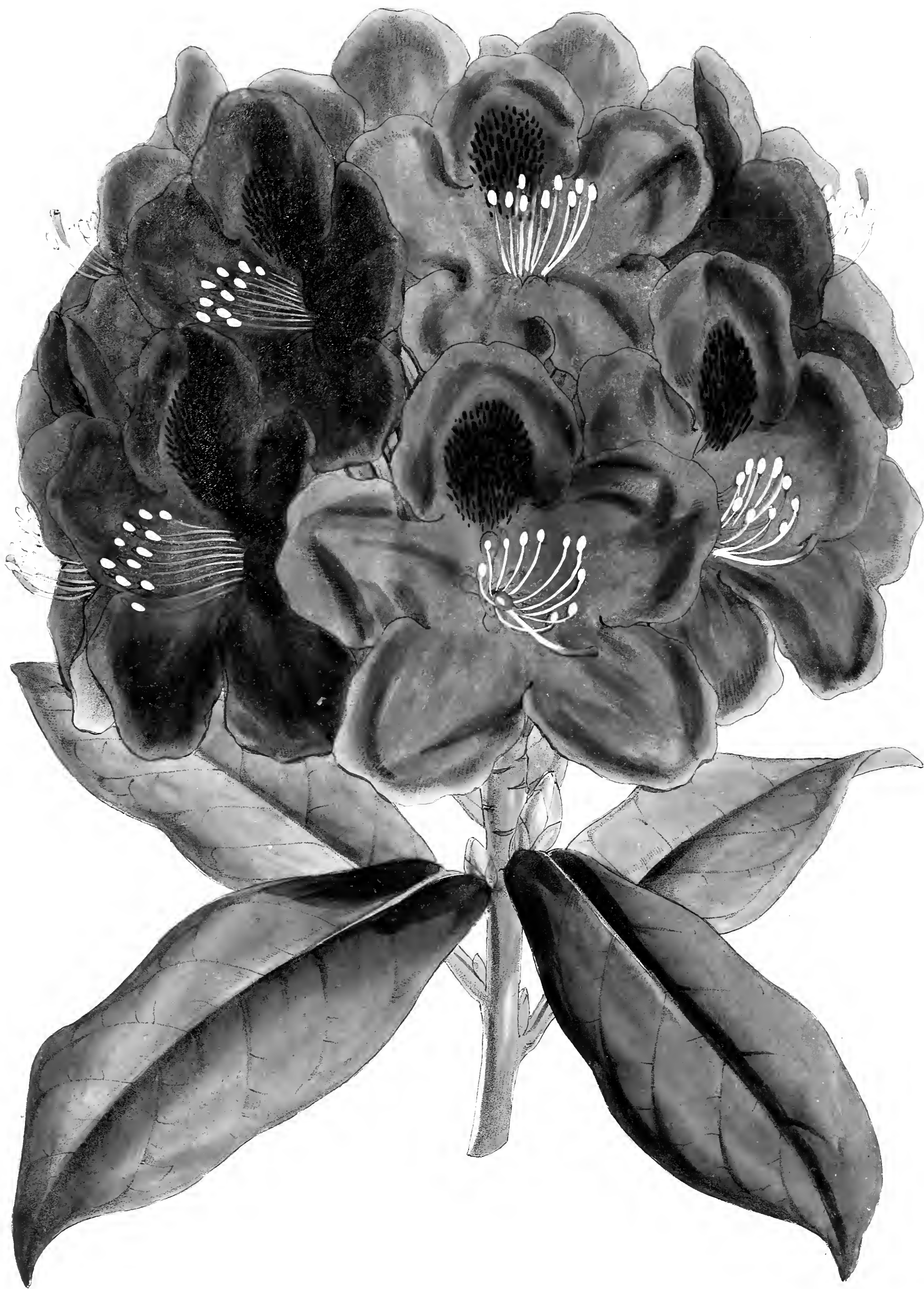


PLATE 18.

AMILCAR RHODODENDRON.

Rhododendron catawbiense (hyb.).

A very fine hardy Rhododendron, raised by Mr. Standish, nurseryman, of Bagshot, who is well known as a most successful grower of this race of plants, and the fortunate raiser of a considerable number of the finer varieties now in cultivation. The new kind here figured, was, we learn, raised between a variety called *Blandyanum*, one of the hybrids obtained from *catawbiense*, and a variety of *Queen Victoria*, which is a hybrid from *ponticum purpureum*. It is, however, much more richly spotted than either of its parents.

The Amilcar Rhododendron is a vigorous hardy evergreen shrub, having deep-green leaves of the usual elongated form, and of a firm coriaceous texture. The flowers are borne in large terminal clusters, and are exceedingly rich and effective. They are individually of large size, and of a broad open or shallow, almost rotate form, firm in texture, divided at the margin into five segments, which are broad and rounded in outline. The colour is a deep bright violet-purple, having a slight reddish tinge, quite distinct from the common purples met with in this family, and remarkably attractive. The upper or dorsal segment of the corolla is marked about the centre with a large patch of intense black spots, which render the flowers much more attractive.

This variety was exhibited by Mr. Standish, in May last, before the Horticultural Society's Floral Committee, and received from that body a first-class certificate, as a distinct and remarkably showy new kind. Mr. Standish describes it as a remark-

Plate 18.—RHODODENDRON CATAWBIENSE (hyb.) AMILCAR: flowers large, rich deep violet-purple, marked in the centre of the upper segment with a thick blotch of intense black spots.

ably free bloomer. "This," he observes, "I have always found to be the case when I have bred between two distinct hybrids. As long as the parent hybrids belong to distinct strains, the progeny will be healthy; but when two of the same strain of hybrids (provided they are true hybrids) are taken to breed from, the progeny becomes sickly, the flowers poor, and the plants never do any good. On the contrary, by employing a fresh strain every time a cross is effected, you may go on breeding from true hybrids as long as you please."

Peat soil or heath-mould and a rather moist situation are the conditions most favourable to the growth of Rhododendrons; but we may quote the evidence of Mr. Standish, that with a trifling expense the worst of soils may be rendered suitable for them. The plan is to form a compost for them, consisting of "two parts sandy loam or peat, or in fact any sandy soil that does not contain much chalk or lime, which American plants dislike, one-fourth leaf-mould, one-eighth sand, and one-eighth rotten manure," the whole to be thoroughly incorporated before using, or, what is better, placed in a heap for a twelvemonth, and turned over two or three times in that period. Old exhausted beds are greatly benefited by a good dressing of rotten manure forked in carefully about the roots.

A very important item of practical instruction in the culture of Rhododendrons and similar fine-rooted plants, has been tersely expressed in these words: "Never allow them to become thoroughly dry at the root."



PLATE 19.

SPLENDENT GAZANIA.

Gazania splendens.

This fine summer-flowering plant, which has only lately attracted attention at the metropolitan exhibitions, appears to have been grown for some time past in one or two localities in the country; but as it has not been at all generally known, it may for practical purposes be regarded as a novelty. When exhibited in July, 1859, by the Messrs. E. G. Henderson and Son, of St. John's Wood, it received a certificate of commendation from the Floral Committee of the Horticultural Society, as a distinct and showy bedding plant, likely to be useful in flower-gardens on account of its rich orange-yellow flowers. Our figure will, we think, still further recommend it to the notice of those who have not yet added it to their collections.

Gazania splendens is a dwarf, decumbent, herbaceous plant, with the general habit and aspect of *G. uniflora*, being, however, more compact in growth. It will be extremely useful, in suitable seasons, for small beds in flower-gardens, where it will prove much more showy and attractive than the species just mentioned. Its stems, which spread from the base, are of a reddish tinge, branched, prostrate, forming a spreading tuft;

Plate 19.—GAZANIA SPLENDENS: stems terete, branched, smooth, leafy, prostrate; leaves narrow-oblong-spathulate, tapering below into a short fleshy petiole, glossy-green above, white and cottony with a close felt of downy hairs and having a smooth fleshy midrib beneath, occasionally obscurely lobed; involucral scales in about four series, those of the two outer series linear, blunt, recurved, glossy above white beneath as in the leaves, the inner ones erect, triangular-ovate, acute, with membranaceous edges; flower-heads large; ray-florets broad, elliptic-oblong, obtuse, overlapping, orange-yellow, spotted at the base; disc-florets short, orange-coloured, with exserted styles.

GAZANIA SPLENDENS of gardens, Moore, in *Illustrated Bouquet*, t. 29, fig. 1.

they are terete, bearing at intervals the narrow spathulate leaves, which are from three to five inches long, bluntly rounded at the apex, the long, narrow base tapering into a short fleshy foot-stalk, and occasionally having one or two small side-lobes. These leaves are of a dark glossy-green above, and channelled in the centre, whilst beneath they are quite white with a felt of close, fine, cobwebby down, and have a prominent, fleshy, glabrous midrib. The peduncles, which spring here and there from the axils of the leaves, are terete and fleshy, like the stem, and bear towards their base a small, linear, obtuse, leaf-like bract. The involucre consists of about two series of outer recurved scales or bracts, which are linear, blunt, glossy green, white beneath, and having a fleshy rib like the leaves; and two series of inner bracts, which are triangular-ovate, erect, acute, with membranaceous edges. The flower-heads are three to four inches in diameter when expanded; the florets of the ray are nearly half an inch broad, obtuse, elliptic-oblong, overlapping, rich orange-yellow, paler behind, and marked at the base with a white spot, surrounded by a blotch of blackish-brown, which becomes quite black at the base; the florets of the disc short, orange-coloured, with exserted styles.

This handsome plant is of obscure origin. In some respects it comes near *G. rigens*, but it is distinct from that species, and approaches *G. uniflora* more closely in its general features of growth. It has been suggested that it may be a mule between *rigens* and *uniflora*, and this is not unlikely to be the case.

The plant is of the easiest culture, and free and vigorous in growth. It may be readily increased by means of cuttings, and as a pot-plant may be grown in any tolerably rich, light compost. In the flower-garden it will also grow freely in ordinary good soil, so that it is not too heavy nor too rich, which latter quality would have a tendency to develop the foliage at the expense of the flowers. It of course requires a greenhouse or well-protected frame for its preservation in winter. In sunny seasons, the garden cannot be enlivened by a more brilliant and effective flower.



PLATE 20.

CLAUD'S CEREUS OR TORCH THISTLE.

Cereus Claudiana.

We have here a beautiful Cactus, with the general habit and character of the well-known *Cereus speciosissimus*, producing moderate-sized flowers, which are remarkable alike for their exquisite colouring and their compactness and regularity of form. It was raised from seed, in the island of Jersey, and was given by the gentleman who received it from thence, and after whose son it is named, to Mr. G. Fry, of the Manor Nursery, Lee. The specimens from which our figure was taken were furnished in June last.

The stems of this new Cactus are quadrangular, with four prominent wing-like angles, obscurely notched in a sinuated manner, and bearing small tufts of spines in the notches. The flowers are about four inches in diameter, funnel-shaped, with numerous petals, which lie in about four series, and are all of nearly equal length, producing a remarkably regular and compact flower-cup; a few additional sepalline leaves, merging into bracts, are produced towards the exterior base of the shouldered perianth, which, exclusive of the tube and ovary, is about two and a half inches long. The colour of the inner petals is a bright purplish-rose or rosy-purple, with a streak of crimson down the centre, and the outer series of sepalline divisions, of which the extreme tips only are visible in the spaces between the closely-imbricating petals, are crimson. There is a large

Plate 20.—CEREUS CLAUDIANA: stems quadrangular, four-winged, the angles sinuately notched, with tufts of small spines as in *speciosissimus*; flowers medium-sized, remarkably even and compactly formed, the inner petals bright purplish-rose, with a crimson bar, the outer ones crimson.

tuft of declinate white stamens, and a style terminated by a twelve-fingered stigma.

Mr. Fry has communicated the following hints on the culture of such Cacti as that which forms the subject of our plate:—

“The Cacti are plants of very easy culture and are increased readily by means of cuttings taken from ripened parts of the stem. It is of some importance, that the cuttings should be cut with a sharp clean-edged knife, for if the wound is bruised, the chances are that its surface will decay. They should be planted in dry, gritty or porous soil, and being very succulent, they should be placed on a dry shelf in some airy house where they can be kept tolerably dry. Cuttings thus treated, will be found to emit roots in a very short time, and may then be potted singly in well-drained small pots, in a mixture of road-grit (three parts) with a little mellow loam and fine charcoal and lime-rubbish. The plants, as they grow, are to be shifted into larger pots, using the soil somewhat coarser at each successive shift, and giving abundant drainage. This is essential, for though these plants require to be liberally watered when growing and blooming, yet the water must percolate freely and dry off quickly. One or two waterings during the flowering season with weak manure-water will assist the blooming materially. During the dormant winter months very little water will be necessary, and a damp situation must be, by all means, avoided.

“If large specimens are required, liberal shifts with a higher temperature than that of a cool greenhouse will secure the object, especially if the pots can be plunged in a dry half-spent tan or bark-bed. The soil, too, may consist of small portions of peat chopped roughly, and of very old thoroughly decomposed cow-dung, added to equal parts of good fibrous loam and road-grit, which latter is for the most part pulverized stone.

“The season of blooming may be prolonged by removing the plants into a cooler house after their flowers are expanded, and shading them from intense sun-heat.”

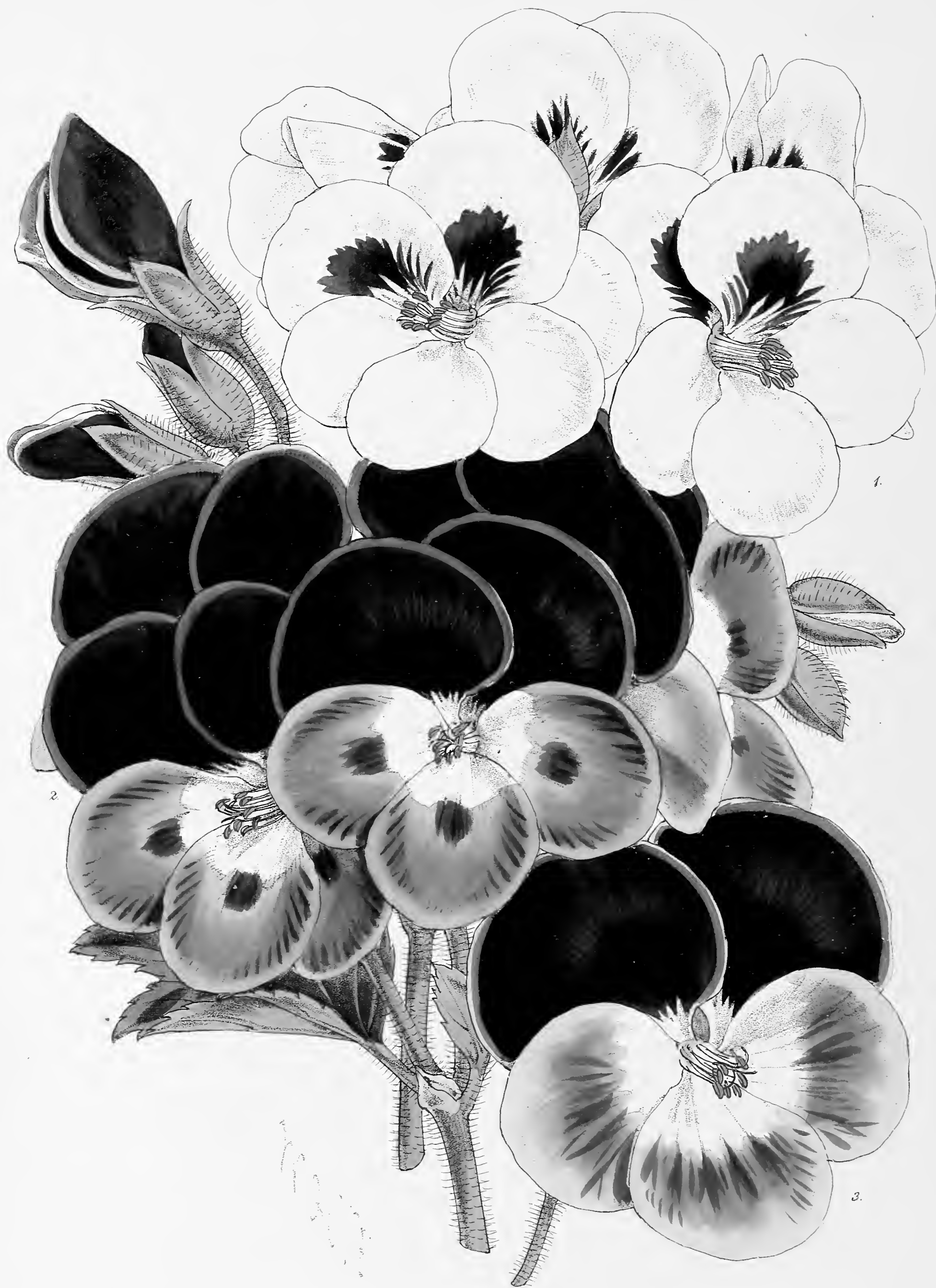


PLATE 21.

VARIETIES OF PELARGONIUM.

Pelargonium (hybridum).

The excellent varieties of *Pelargonium* represented in the accompanying Plate, are among the best of those which have appeared during the past blooming season. They are all seedlings of great merit, and may be regarded as acquisitions by those who seek for the choicer novelties of this showy flower, produced from year to year by the skilful and well-directed efforts of a few leading growers.

There is probably no more charming variety yet produced than *Perdita*, the central figure of our group. It was raised by Edmund Foster, Esq., of Clewer Manor, near Windsor, and has been exhibited during the past summer by Mr. Turner, of Slough. At one of the meetings of the Horticultural Society's Floral Committee, at which it was produced in great beauty, a first-class certificate was awarded to it. As shown on that occasion, it was a compact-growing, free-blooming variety, of vigorous habit, its blossoms of large size, of excellent form and substance, and so exceedingly richly coloured that our representation falls short of the original, as must all pictures of flowers having glowing colours like these. The upper petals are nearly covered by a dense satiny blotch of maroon, outside of which appears a narrow even belt or margin of rosy-crimson. The base of the lower petals is pure white, forming a broad

Plate 21.—PELARGONIUM (*hybridum*):—

Fig. 1. *PERDITA*: upper petals maroon, edged with rose-crimson, lower ones rose suffused and mottled with crimson, and with a central spot of the same colour; centre white.

Fig. 2. *MODESTY*: flowers white, the upper petals marked with a small dense blotch of maroon.

Fig. 3. *GARIBALDI*: flowers large; upper petals maroon edged with rose, lower ones rose-pink dashed with crimson; centre white.

white centre to the flower; the rest of their surface is of a brilliant rose-colour, suffused and marbled with veiny blotches of crimson, and also marked with a small but evident spot of the same colour near their centre.

Finely contrasting with this is the variety called *Modesty*, represented in the upper part of our plate. This was raised by Edward Beck, Esq., of Isleworth, and when exhibited at the meeting of the Floral Committee, was commended as a useful flower for decorative purposes. It is in fact a very ornamental variety, and a meritorious one in this point of view, though not quite perfect in regard to some of the technical merits required by florists. The plant is one of sturdy free-blooming habit, and bears its blossoms in bold and effective trusses. Individually they are about medium size, well formed, a little wanting in smoothness, pure white, the lower petals unmarked, but the upper ones ornamented with a small dense spot of reddish maroon, which breaks up towards the base into pencilled lines. This spotting is dense, clear, and effective, rendering the flowers exceedingly ornamental.

The remaining variety, of which only a single flower is shown, is named *Garibaldi*. It was raised by Mr. Foster, and was exhibited at the same time as the former, by Mr. Turner, of Slough. The flowers in this kind are very large, and very finely formed, of a more rosy tint than *Perdita*, and without the spotting on the lower petals. The upper petals are covered with a dense maroon blotch, edged by a distinct belt of the rosy ground-colour, and the under petals are of this latter hue, a rich rose-pink, dashed here and there with crimson. The bases of the lower petals are white, and form a broad and conspicuous white centre to the flower. It is equally fine with the variety already referred to, but less distinct in character from existing varieties.

These plants are easily cultivated in a warm greenhouse judiciously ventilated in winter, and from which frost and excessive damp are excluded. A rich loamy soil is preferable for them, and they are increased readily by cuttings after the blooming season is past, when the old plants require to be pruned close down in order to form stocky specimens for the succeeding year. After pruning they should be kept dryish till new shoots are produced, and then they may be root-pruned and repotted into small-sized pots for the winter, larger ones being afforded them early in spring.



PLATE 22.

VARIETIES OF ORIENTAL HYACINTH.

Hyacinthus orientalis, vars.

In our Plate 15 we gave representations of two of the finest varieties of Hyacinth, and we now figure two others equally meritorious. As in the former case, our illustrations are taken from some of the fine specimens which gave an especially imposing character to the last past annual exhibition of these flowers, held by Messrs. Cutbush and Son, at their nursery, at Highgate.

It will be seen from our figure of the variety called *Snowball*, that considerable improvement has been effected in the form of the individual bells, which are also in this case of a very thick fleshy texture, and consequently superior in substance to most other sorts. It produces a fine spike of these flowers, and is in every way of first-rate character. The bells measure, as reflexed, about three-fourths of an inch in length, and average an inch and a half in breadth, as naturally expanded, and about a quarter of an inch more if the segments are spread out flat. They are pure white, of very great substance, the surface rather furrowed, the tube about half an inch in diameter, the segments half an inch broad, and moderately reflexed. It is one of the finest varieties yet known, and is of a hardy constitution.

The variety called *Lord Clyde* is one those producing medium-sized bells, arranged so as to form a close spike. They are of a puce-tinted violet colour, with a somewhat darker streak down the face of the segments, the lightest part being what is called "petunia colour" in the shops. It is very distinct.

Plate 22.—HYACINTHUS ORIENTALIS, varieties :—

Fig. 1. SNOWBALL: perianth large, of great substance, about three-fourths of an inch long, with very broad reflexed segments, single, pure white.

Fig. 2. LORD CLYDE: perianth medium-sized, about three-fourths of an inch long, single, puce-violet.

We may here continue Messrs. Cutbush's instructions for the culture of potted Hyacinths (see also Plate 15):—

“The pots are to remain plunged in old tan and coal-ashes until they are well filled with roots. When they are removed they must be cleansed from all impurities, and exposed gradually to the light. The pots must be introduced to the forcing-pit in successional order, and when there the roots must not be suffered to get into the fermenting material. Abundance of water must be given, and the plants kept as near the glass as possible. If not required early, they may be set on shelves in a cool greenhouse or frame, or indoors on the window-sill, under which conditions they will come into bloom by the early part of March, and prove finer both as to spike and colour than those obtained any other way.

“To grow them in water, use Tye's Registered Hyacinth Bottle, and select the *single* varieties. Fill the glasses with clean water (not from a spring unless it has been exposed to atmospheric influences) nearly to the top, and place the bulb so that its base just touches the water. Then put them away in a close dark cupboard or cellar, away from all risk of injury from frost, for about three weeks, or until the roots have grown some three or four inches long. After this, gradually inure them to light, and change the water about once a fortnight, pouring a little over the crown and leaves to wash off impurities. The best position for them is in a cool room, as near the window as possible, because they can there obtain light and air. October is the best month for planting Hyacinths in water.”

The commoner high-coloured varieties form admirable beds for the spring flower-garden.

We append a brief list of some of the best varieties of Hyacinth, the single ones being preferable for general purposes:—

Double-flowered:—Bouquet Royal, Czar Nicholas, Duke of Wellington, Princess Royal, Waterloo,—*red* or *rose*. La Déesse, Prince of Waterloo, Latour d'Auvergne, Triomphe Blandina,—*white*. Blocksberg, Comte de St. Priest, Laurens Koster, Prince van Saxe-Weimar,—*blue*.

Single-flowered:—Amy, Cavaignac, La Dame du Lac, Lady Sale, Lina, Madame Hodgson, Mons. de Fæsch, Norma, Robert Steiger,—*red*. L'Unique,—*mauve*. Elfrida, Grandeur à Merveille, Grande Vidette, Tubiflora, Victoria Regina, Voltaire,—*white*. Argus, Baron van Tuyll, Grand Lilas, Orondates, Couronne de Celle, Prince Albert,—*blue*. Heroine, Koning van Holland,—*yellow*.





PLATE 23.

PEARL CAMELLIA.

Camellia japonica, var.

The handsome new Camellia represented in our Plate is a seedling raised in this country, and recently offered for sale by Messrs. Rollisson and Son, of the Tooting Nursery, to whom we owe our obligations for the opportunity of figuring it. We saw it flowering freely in their establishment last spring, and then regarded it as a desirable and distinct variety, likely to give satisfaction to cultivators.

It forms a compact-growing evergreen shrub, with dark glossy foliage, and fine clear-white flowers produced freely on young plants. The flowers are of moderate size, double, with broad, circular, beautifully imbricated petals, of a good white, and remarkable for their substance; they are produced abundantly, and have a very handsome appearance from the decided contrast between their own hue and that of the background of foliage against which they are displayed. It will be found to be a very suitable variety for cultivation in gardens where the accommodation is limited, on account of its compact style of growth and free blooming character.

The present variety is quite distinct from the old favourite double white or *alba plena*, and the equally admired *fimbriata*, with its delicately fringed petals. From these, which are two of the best old sorts, and highly to be recommended for general cultivation, the variety now figured differs in the breadth of its petals, and the more cup-shaped character of the flower during its earlier stages.

We cannot better occupy our remaining space than by con-

Plate 23.—CAMELLIA JAPONICA, *var.* PEARL: habit compact; flowers medium size, double, pure white.

densing some very practical remarks on the culture of these fine plants by the late Mr. R. Errington, published a few years since in the 'Gardener's Magazine of Botany.' Mr. Errington writes:—

The Camellias here (at Oulton Park) are required to be constantly in blossom from the end of October till about the middle of April, and this we manage annually without even lifting out individual plants to receive special treatment, the Camellias having a house appropriated to them. A vast amount of liquid manure being used, the plants do not seem to require rest, but run into new growth after the most abundant blossoming, in defiance of a low conservatory temperature of from 40° to 50°. They are suffered to continue developing their wood-buds without extra temperature until about the middle of April, by which period whatever blossoms or buds remain are plucked away. The heat is then increased to 65° or 70° by day, and to 60° by night, with abundant atmospheric moisture, the plants, also, being kept almost constantly damp, and the floor flooded daily.

By this treatment, coupled with shading, the plants become full of new growth, shoots in the utmost profusion springing from every part of the tree, liquid manure being meanwhile liberally used. My maxim is to keep them in this close, warm, stimulating temperature till the leaves have attained their utmost extension, and this brings us up to the second week in June, when the plants are placed on the north side of a wall, and screened with canvas for a few days, after which they are placed in a thoroughly exposed situation on a bed of coal-ashes. Most of the shoots have by this time formed blossom-buds in an embryo state, but if not, a check is given to cause them to do so, by lessening the supply of water. Liquid manure is now also discontinued till the blossom-buds are formed in a most decided state, but is then resumed and continued as long as no signs of a second growth appear. It is however to be remembered that the manured water is used weak, and perfectly clear.





PLATE 24.

SUPERB SKINNER'S LYCASTE.

Lycaste Skinneri, var. *superba*.

We have much satisfaction in offering to our readers the accompanying representation of a remarkably fine Orchidaceous plant, one of the most beautiful forms, certainly, yet made known, of a very variable and very handsome species, which under many of its phases is quite familiar to cultivators of this tribe of plants. The present variety was sent, along with several other distinct forms, from Guatemala, by G. U. Skinner, Esq., to Mr. Veitch, of the Royal Exotic Nursery, Chelsea, with whom it bloomed last April, and at that time our figure was taken. Mr. Veitch's plant was submitted to the judgment of the Horticultural Society's Floral Committee, and was awarded a first-class certificate of merit.

The habit of the plant is exactly that of the species itself. It has oblong-ovate compressed pseudobulbs, from the base of which spring the flower-scapes, each terminated by a single large showy flower, of a thick fleshy texture. The leaves, which are large, oblong-lanceolate, and plaited, grow from the top of the pseudobulbs. The flowers are remarkably beautiful, being of large size and attractive colouring; the sepals are of a delicate rosy-tinted or deep blush colour, deeper at the base, and more or less rolled back; the petals are of an intense rosy-crimson, and the lip is white, the contrast between the two latter parts being very rich and striking.

The present species of *Lycaste* is a free-flowering plant, which maintains its ground in collections of Orchids as one of the more showy and attractive species of the family. The plants should

Plate 24.—LYCASTE SKINNERI, var. SUPERBA: sepals blush; petals intense rosy-crimson; lip white.

be grown in well-drained pots, or in shallow open-sided pans, amongst turfy peat, sphagnum, and broken charcoal; and, as they do not root deeply, the pans are perhaps preferable for their cultivation, as the quantity of potsherd drainage required when pots are employed serves as a harbour for insects. They succeed best in what is understood as the cool division of the orchid-house, where the temperature is kept at about an average of 60°, with plenty of moisture, so that the plants may be accommodated with a moist and comparatively cool atmosphere.

The soil used should be elevated above the level of the rim of the pot or pan, and the plants secured by means of small pegs or sticks until they have fixed themselves by means of their roots. After having made their growth in the temperature above indicated, they need a cooler and drier rest, without which they will not flower satisfactorily; but with vigorous growth, such as the above conditions will induce, and that followed by a period of rest, the flowers will be abundantly developed.

The plants are increased by division of the rhizome, so as to separate the pseudobulbs.





PLATE 25.

KINGHORN'S AZALEA.

Azalea indica, var. *Kinghornii*.

This fine variety of Indian Azalea has been raised by Mr. Kinghorn, of the Sheen Nursery, Richmond, who was also the fortunate raiser of the variety called President, figured in a former Plate (14). Both varieties have been bloomed and exhibited during the spring of the present year, and were deservedly admired; the present, though perhaps less distinct in colour than President, being even a finer variety as regards the smoothness and substance of the flowers, and one which in every way is fitted to take a high rank among the varieties already in cultivation.

The habit of the plant is vigorous, the leaves being broadly elliptic, and moderately furnished with narrow hair-like scales. The flowers are large and finely formed. They are of remarkable substance, and smooth and fine in texture, the colour being a bright and lively though light rose-colour, thickly spotted at the base of the upper segments with deep rosy-purple. The colour is remarkably pleasing and effective, but the great merit of the flowers consists in their firmness and smoothness of texture. Our illustration was taken from specimens furnished last May by Mr. Kinghorn.

The Indian Azaleas, ranking amongst the most glowing and attractive of spring flowers for conservatory decoration, are deserving of the most assiduous care in their cultivation, and the production of compact, well-formed plants should be one es-

Plate 25.—AZALEA INDICA, var. KINGHORNII: leaves hairy, elliptic; flowers smooth and firm, of a rounded outline, light rose-colour, thickly spotted with deep rose-purple on the upper segments.

pecial object of the cultivator. This may be accomplished thus :—Select healthy young plants in the spring before growth commences ; these should not be allowed to flower, but their shoots should be topped so as to cause them to develop other shoots from their base. The more vigorous of the young shoots may be again topped when two or three inches long, and before the next growing season any elongated late-formed growths should also be shortened in. This process is to be persisted in for a season or two until a moderate bulk has been attained, when the topping may be somewhat relaxed, the most vigorous shoots only, and those which grow out of place being shortened. The most perfect form into which an Azalea can be formed is that of a low pyramid or cone, and when densely furnished with branches, and these covered with blossoms, the effect of such plants is very fine.

This process of formation is of course not consistent with the production of flowers, but it is merely resorted to for the purpose of producing symmetrical and well-furnished plants. Young plants may indeed, by having sufficient root-space and a genial atmosphere, be induced to make two or three growths in a season by pinching out the terminal buds as soon as the shoots are sufficiently elongated ; and in any case strong-growing shoots likely to interfere with the form and symmetry of the plant should be stopped while young, by which means the use of the knife may be altogether avoided, and a waste of the energy of the plants prevented.

We must refer to our remarks under Plate 14, for further hints on the culture of the Azalea, at which place will be found some instructions furnished by Mr. Kinghorn, a high practical authority on the subject. Mr. Kinghorn further remarks :—“ When under glass, if the plants are attacked by *Thrips*, they must be fumigated with tobacco or syringed with water, in which Gishurst Compound, at the rate of two ounces to the gallon, has been dissolved. The plant is to be laid down sideways to apply this, and is afterwards to be syringed with clear water before the mixture has dried on the foliage.” This washing is very necessary, as the compound, being of a soapy nature, would otherwise adhere to and disfigure the plants.



PLATE 26.

THREE-COLOURED PTERIS.

Pteris (aspericaulis) tricolor.

We have already introduced to the notice of our readers a fine variegated Fern (see Plate 4), and now offer an illustration representing another beautiful variegated member of the same popular family. The former, being a large-growing subject, five or six feet in height, has been necessarily represented on a very reduced scale; but of our present subject, which is a dwarfish plant, the accompanying Plate shows the average size, and the colour as the newly formed frond is changing from red to green.

This beautiful and charmingly-coloured Fern made its first appearance in the early part of the present year, having been sent from Brussels by M. Linden, its fortunate introducer, for exhibition at a meeting of the Horticultural Society's Floral Committee, held in the month of February, on which occasion it was awarded a first-class certificate. It had been obtained by M. Linden from the Straits of Malacca.

Some of our highest authorities in the nomenclature of Ferns have regarded our present subject and that figured under the name of *P. argyræa* at Plate 4, as varieties of the common Indian *P. quadriaurita*; but, at least for all the purposes of cultivation, the two plants are totally distinct. *P. argyræa* is comparatively a giant, and forms a noble object, with its long, arching, well-marked fronds, which are very much larger than the

Plate 26.—PTERIS (*aspericaulis*) TRICOLOR: fronds dwarfish, pedately pinnate-pinnatifid; segments narrow linear-oblong, blunt, somewhat falcate, crowded, the terminal one caudate; stipites and rachides purplish-red, the segments deep green marked with greyish-white at the base; sori linear marginal.

P. TRICOLOR, *Linden MS.*; and in *Hortus Lindenianus*, t. 12. *Moore, Gardeners' Chronicle*, 1860, p. 217.

P. QUADRIAURITA, var. TRICOLOR, *Hooker, in Botanical Magazine*, t. 5183.

usual forms of *P. quadriaurita*; this appears to us to be more conveniently regarded as a variegated form of a large-growing species, allied, indeed, to *quadriaurita*, to which the name of *P. pyrophylla* seems to belong. On the other hand, *P. tricolor* is by comparison a dwarf, being smaller in growth than the usual forms of *P. quadriaurita*, indeed quite identical in habit, constitution, and aspect with *aspericaulis*, of which species we think the Fern now before us is more properly to be considered as a gaily-coloured variety. No two Ferns having a family relationship can well be more thoroughly dissimilar in a cultural point of view than the two beautiful variegated Ferns here referred to.

The plant forms a dwarfish spreading mass or tuft, with a small erect crown or caudex, from which the fronds are produced on every side. The fronds, when of the largest size, are about a couple of feet in length: our figure representing very nearly the full size. They are what is called pedately pinnate-pinnatifid, that is, the fronds are first divided in a pinnate manner, and these divisions are then cut into little segments, the lower pair giving off a branch on the hinder side near the base. The segments are narrow linear-oblong, bluntish, and somewhat curved, bearing the fructification on their margins. The pinnæ have an elongated, lance-shaped outline, the segments at the extreme point being joined together into a bluntish tail or narrow undivided leaflet. The stipites are roughish, of a dull purple colour, and somewhat scaly near the base, while the rachides and costæ are purplish red, the latter bearing red spines along the upper side at the base of the segments. The young fronds appear of a deep-red colour, the base of the segments next the rachis being at this stage pinkish. This deep purplish-red is permanent along the rachides and costæ, but the segments gradually change to a deep green at the upper end, and to a greyish-white at the base, the three colours being in the perfect fronds very strikingly conspicuous. The fronds of very young plants are marbled with grey, exactly as occurs in *P. aspericaulis* itself.





PLATE 27.

ORANGE-BLOTCHED CATTLEYA.

Cattleya (Mossiae) aureo-maculata.

The fine *Cattleya* now figured, was bloomed in March last, for the first time in this country, by Messrs. Rollison and Sons, of Tooting, by whom the plant had been imported from Bahia in Brazil. It is remarkable for its very large showy flowers, which are much lighter coloured than in the common forms of *C. Mossiae*, and also for the prominent deep orange-coloured stain which appears conspicuous beyond the mouth of the tube-like incurved portion of the lip, and is continued nearly to its base. The flowers are very handsome.

The plant appears to be one of the pale-coloured varieties of *Cattleya* allied to *C. Wageri*, but not technically distinguishable from *C. Mossiae*, of which they all may be considered as varieties, differing only in their peculiarities of colouring. It is not, however, the less valuable for this in an ornamental point of view, being quite distinct as to colouring.

The pseudobulbs are clavately fusiform, supporting a single leaf of a thick fleshy solid texture, oblong form, and deep-green colour. The scape was short in the specimen we have examined, bearing a solitary flower, but the flowers are large, measuring six and a half inches from the tip of the dorsal sepal to the point of the lip, and upwards of seven inches across in the direction of the petals. The sepals are blush-white, lance-shaped, plane, rather over three inches long, and about an inch wide in the broadest part. The petals are shortly clawed, broadly ovate, obtuse, wavy and crisped at the edge,

Plate 27.—CATTLEYA (MOSSIAE) AUREO-MACULATA: habit and inflorescence as in *C. Mossiae*; flowers very large; sepals lanceolate; petals ovate, obtuse, wavy, crisped, and minutely toothed, lip pale-rose with a large deep-orange central stain, the margin wavy-crisped, and denticulate.

and there also finely toothed, three and a half inches long, by two and a half wide, and of a rather deeper blush than the sepals. The lip is obovate, emarginate, rolled over the column at the sides, and undulated and frilled as well as minutely toothed towards the front; it is of a pale delicate tint of mauve-purple, deepest on the rolled-up part, and in the centre, projected on the flat expanded part beyond the column, is an elongated stain of a deep orange-colour, extending to the base, and spreading out in front into a fan-shaped form. There is none of the coloured veining occurring in the commonly known forms of this species. The column is green below, white above, semiterete, rounded behind with sharp lateral angles, somewhat clavate, the side angles dilated in the form of two wings above, with an apical tooth between them.

The climate in which some of these *Cattleyas* are found in Brazil, has been thus described by Mr. Gardner, whose observations may afford a useful hint to cultivators:—"At this elevation (2000 feet) the climate is very much cooler than it is at Rio. In the months of May and June, the thermometer has been known to be as low as 32° just before day-break; the lowest at which I observed it myself was one morning at the end of May, when at eight o'clock it indicated 39° . The highest to which it rose during the six months I resided there, was in the end of February, when one day it indicated 84° at noon. The hot season is also the season of rains, and it is then that the mass of the Orchids, and almost every other tribe of plants, come into flower. From these facts cultivators ought to take a lesson in the cultivation of the productions of this and of similar regions. The greater part of the Orchids which are sent to England from the Organ Mountains, grow in the region of the above temperature, the elevation being from 3,000 to 3,500 feet above the level of the sea."





PLATE 28.

HEDDEWIG'S PINK.

Dianthus chinensis, var. Heddewigii.

This new Japanese Pink, a gigantic form of the Chinese or Indian Pink long cultivated in our gardens, is one of the finest of recent introductions among hardy plants. It is a native of Japan, and has been introduced to European gardens through the agency of Mr. Heddewig, a nurseryman of St. Petersburg, after whom it has been named, the plant having been exhibited by him at one of the flower-shows held in 1858, in the Russian capital, on which occasion it was rewarded by a medal. The plant was first publicly shown in this country in 1859, by Messrs. E. G. Henderson and Son, of St. John's Wood; and an exhibition from these gentlemen was commended by the Floral Committee of the Horticultural Society, and awarded a medal at the summer show of the Royal Botanic Society.

This *Dianthus Heddewigii* forms a low-tufted herb, its shoots being furnished with grassy pink-like leaves, rather broader than usual. The flower-stems grow a foot or more in height, branching below, and bearing numerous flowers which are of a large and remarkably showy character. In some of the varieties, especially those producing dark-coloured flowers, the stems are stained with purple, while in others they are green, all being more or less glaucous. The leaves are broadish, linear, acute, rather short, recurved, roughish at the margins. The flowers are terminal, usually produced singly at the ends of the side

Plate 28.—*DIANTHUS CHINENSIS, var. HEDDEWIGII*: stems much branched at the base, dwarfish, and as well as the broad recurved leaves of a glaucous green; flowers large, three inches in diameter; petals broad, obovate, incised-dentate, cuneate and entire at the base.

D. SINENSIS, var. HEDDEWIGII, et GIGANTEUS, Regel, Gartenflora, 1858.

branches, very large, five-petaled, averaging three inches in diameter, spreading out flat, and in the best varieties forming a complete circle, with the petals more or less overlapping. The calyx is cylindrical, with five acutish lobes, and is surrounded at the base by an involucre of short recurved leaflets. The petals are clawed, and have the limb, which is spread out horizontally, broadly obovate, with the outer margin more or less deeply lacerate-toothed, the claw and basal part being wedge-shaped and quite entire. The colours are extremely varied, but consist mainly of different shades of crimson and deep-rose or violet-crimson, some being uniformly coloured and others variously particoloured. The predominant colour is crimson, varying in the richest conceivable shades, the surface being of the softest velvet-like appearance; the centre or eye is often in addition marked with a dark zone or ring radiating outward. The particoloured forms are indescribable, but our illustration will give some idea of their character.

The quality of the flowers as regards form and colouring produced by plants raised from seeds is exceedingly variable. It will be therefore necessary both to increase by means of cuttings the more strikingly handsome of the varieties, and also to preserve the seeds only of those which possess desirable properties, by which latter means improvement may no doubt be gradually wrought upon a flower which even in its present state is superlatively beautiful.

The plant appears to be a short-lived perennial, like the Indian Pink, and will doubtless like that be the better for being renewed frequently either by means of seeds or cuttings. Those raised from seeds sown in a slight warmth early in spring, and encouraged by potting and getting them established early in the same temperature, and then gradually hardened, will flower finely during the latter part of the summer in pots in the greenhouse, and also more or less perfectly according to the state of the season, if planted out in suitable soil, and in good situations. They should have a rather enriched light soil, such as a compost of friable turfy loam, and good leaf mould. This new Pink is to be regarded as a very desirable plant both for pot culture, and for the open borders.



PLATE 29.

PRESIDENT ROSE.

Rosa indica, var.

This beautiful Rose is of American origin, and was introduced to the public last year through Mr. William Paul, of the Cheshunt Nurseries, Waltham Cross, by whom some magnificent specimens were furnished for our drawing in the course of the past summer. We can only regret that our limited page by no means does justice to the admirably cultivated examples furnished by our friend.

The *President* Rose has been exhibited before the chief metropolitan authorities, and has borne away the honours of a first-class certificate from the Royal Botanic Society, and from the Floral Committee of the Horticultural Society. The beautiful blossoms produced by the plants exhibited on the occasions referred to, well entitled it to such distinction.

We learn from Mr. Paul that the plant is of free growth and of a hardy character, being, in regard to habit and constitution, very similar to the variety called Caroline, which was one of its parents. Its wood is of a firm and rather wiry character, and its foliage bold and healthy-looking, while the flowers, which are globular in form, are large, full of firm smooth petals, and very sweet. The colour is blush, tinged in the younger stages with salmony-buff, as shown in our figure, but in the older stages the latter tint more or less passes away. Mr. Paul describes the colours as fawn and salmon, varying somewhat according to the season at which it blooms. The plants bloom freely and force well. The variety is no doubt a decided acquisition to the group to which it belongs, and will take rank

Plate 29.—ROSA INDICA, *var.* PRESIDENT: flowers large, full, globular, with firm well-cupped petals, blush tinged with salmony-buff, very fragrant.



PLATE 30.

VARIETIES OF PETUNIA.

Petunia nyctaginiflora et violacea, vars.

There has recently appeared, among the varied garden forms of *Petunia*, a race having the flowers curiously blotched and painted with purple and white, these colours being often distributed in very fantastic markings. The handsome fancy kinds shown in our Plate belong to this series.

The variety called *Eclipse* is a seedling raised by Mr. G. Smith, of the Tollington Nursery, Hornsey Road. It was exhibited in July last at a meeting of the Horticultural Society's Floral Committee, on which occasion it was commended as a fine decorative sort. The plant is of vigorous short-jointed growth, with broad leaves, and evidently belongs to the group of varieties retaining many of the characteristic features of *P. nyctaginiflora*. The flowers are large, three inches or more in diameter, and very freely produced. They have a large calyx, the lobes of which are an inch long, obovate, and rounded at the end. The narrow tube of the corolla is about an inch long, hairy externally; and the segments of the limb, which are broad, overlapping, and somewhat undulating or wavy, spread out so as to form a flattish face. The colour is mottled mauve-purple and white, variously intermixed in different flowers: the most distinctly marked forms have on a white ground five broad bars or masses of purple radiating from the eye, the rest of the surface being traversed by a network of purple lines; or else two or three of these purple bars become blended into a

Plate 30.—PETUNIA, varieties:—

Fig. 1. *P. (nyctaginiflora) ECLIPSE*: flowers large, blotched and pencilled with mauve-purple on a white ground.

Fig. 2. *P. (violacea) ANNIE KIEN*: flowers double, rich purple margined with white.

broad mass on the lower side of the flower, the rest being barred and veined as before. The anthers are partially petaloid, and nearly close the orifice of the tube.

The variety called *Annie Kien* produces well-formed double blossoms of a rich purple ground-colour, the border of the limb being white. It is of free, dwarf, compact habit, a profuse bloomer, and well suited for pot-culture. The figure was taken in the nursery of Messrs. Henderson and Son, St. John's Wood.

The *Petunia* is easily managed, especially where there is the convenience of a warm close frame, in August or early in September, for the renewal of the plants by cuttings. For this purpose, fill up tolerably firm with prepared soil (consisting of two-thirds leaf-mould, one of mellow loam, and a little silver sand) surfaced with sand, some well-drained six-inch pots, and insert about a dozen cuttings in each pot; water gently, place them in the frame and keep them close and shaded for a week, after which give a little air, and in a fortnight remove them to an airy greenhouse to be kept through the winter for stock. In spring they may be increased to any required extent by repeating the same process. When rooted they should be potted separately in thumb pots, and protected until planting-out time. A few of the best plants of suitable kinds should be retained for flowering in the greenhouse.

For these memoranda we are indebted to Mr. G. Smith, who recommends the following as being some of the best kinds:—

<i>Antigone</i> : double, white, large and full, very fragrant; one of the best double-flowered varieties.	<i>Inimitable</i> : white ground with purple throat.
<i>Atro-coccinea</i> : double, rich crimson, fine; an improvement on Prince Albert.	<i>Inimitable fl.-pleno</i> : double, white with lilac centre, an exquisite variety.
<i>Atro-rosea</i> : double, fine rose, neat.	<i>Lady Turner</i> : dark crimson-rose, richly veined and striped with white, large and fine.
<i>Cærulescens grandiflora</i> : blush-lilac ground, with deep lilac centre, and purplish-blue veins, very fine.	<i>Madame Henri Jacotot</i> : purple blotched with white.
<i>Coquette</i> : an elegant fancy variety, with varying ground-colour of white or purple, marked with violet-blue bars from the centre outwards, very neat and fine.	<i>Purple Model</i> : violet-purple, fine form and substance, the best of its class.
<i>Exquisite</i> : fine white for all purposes.	<i>Queen</i> : rich rose with white eye. The finest of the pinky-rose class, and a gem for clumps.
<i>Harlequin</i> : double, purple striped with white, fine.	<i>Red-cross Banner</i> : double, purple-crimson, good form and habit.
	<i>Virgo Maria</i> : white ground marbled with rose, fine.



PLATE 31.

VARIETIES OF GLOXINIA.

Gloxinia speciosa, vars.

The three Gloxinias represented in the accompanying Plate are new productions of the present season, having qualities which recommend them to the notice of cultivators.

The variety called *Lady Willoughby* was raised by Messrs. Milne and Co., of Vauxhall, and has been commended by the Floral Committee of the Horticultural Society. It was also shown and rewarded at one of the exhibitions of the Royal Botanic Society. Our figure was taken from specimens grown at the Vauxhall Nursery. It belongs to the erect-flowered group, but has the flowers often somewhat inclined, and is one of the largest varieties we have met with. The plant is of vigorous habit, and blooms freely; the flowers are considerably above the average size, the tube nearly cylindrical, white, spreading out into a limb of six or seven segments, and boldly marked around the mouth of the tube with rich rose-colour, the throat or inner part of the tube being yellowish, and the outer or marginal portion of the limb white. It is a bold and very effective variety in its class.

Apollo belongs to the more normal and elegant drooping-flowered division, and is distinguished by its large size and novel colour, the habit and flowering properties being similar to those of other kinds. The tube, which is deflexed and swollen beneath, is purplish outside, yellowish within, marked with small

Plate 31.—GLOXINIA SPECIOSA, varieties :—

Fig. 1. LADY WILLOUGHBY: flowers semi-erect, very large, with bright rosy-coloured throat; limb 6-7-lobed.

Fig. 2. APOLLO: flowers deflexed, rich dark purplish-rose, with spotted tube.

Fig. 3. CYGNA: flowers deflexed, pure white.

dark-coloured dots. The limb consists of five smooth, rounded, spreading segments, and is of a very rich deep rosy-tinted purple. This variety was raised by Messrs. Veitch and Son, of the Royal Exotic Nursery, Chelsea, and we are indebted to Mr. Veitch for the examples from which our figure is prepared. The plant was exhibited during the past summer at one of the exhibitions of the Royal Botanic Society, and was rewarded by a medal.

The remaining kind, *Cygna*, is the best pure white variety we have yet seen. The flowers, which are of the drooping class, are of fair average size, with the usual ventricose tube and five-lobed limb, the segments of the latter being broad, rounded, and even. The colour is a pure white, quite without markings. This variety was exhibited by Messrs. J. and C. Lee, of the Hammersmith Nursery, at a meeting of the Floral Committee of the Horticultural Society, at which it was commended. We are indebted to these gentlemen for the opportunity of figuring it. It will be an effective form for grouping with other more showy-coloured kinds.

Gloxinias are very easily managed in the hothouse, or with the aid of a warm frame to start them fairly into growth, and of a greenhouse in which to flower them. They form large fleshy tubers, which are to be preserved during winter in a dormant state. In spring, as early as convenient, in March or April, these should be removed from the old soil and repotted in small pots in a light mixture of leaf-mould, loam, and sand, and placed in a warm frame, in which, with moderate waterings, they may be grown on till the warm summer weather sets in, when they may be removed to occupy the places made vacant in the greenhouse by the removal of hardier subjects to the open air. They may be shifted into larger pots once or twice while growing, as required, and should be kept tolerably close when in the greenhouse, especially at first, on removal from the warm frame. After flowering, they may be allowed to mature their leaves in a warm dryish place, and may then be stored away again till the following spring.





PLATE 32.

NEW FANCY PELARGONIUMS.

Pelargonium (hybridum).

The class of Fancy Pelargoniums, as the small-growing bright-flowered sorts like those represented in our Plate are called, has already reached so high a degree of development, that varieties of distinctly superior qualities, such as those we have figured, are but occasionally met with, the range of variation being apparently somewhat limited.

The variety which occupies the upper part of Mr. Fitch's group has been called *Arabella Goddard*. This is considered to be a great improvement on the varieties resembling that known as *Celestial*, being of a purer rose-colour, with stouter and more perfect petals, and altogether better adapted to form a show flower. The variety was raised by Mr. Turner, of Slough, and has been awarded a first class certificate by the Horticultural Society's Floral Committee. It has throughout the season, and also last year when it first bloomed, proved to be a beautiful variety, of vigorous yet compact and free-blooming habit. The flowers are of full average size, remarkably well formed, being circular, and smooth both on the edge and surface; they are also finely coloured, bright-lake with a narrow edge of white, and a white centre. Its smoothness and constancy are highly commendable features.

Plate 32.—PELARGONIUM (hybridum):—

Fig. 1. *ARABELLA GODDARD*: flowers medium-sized, of excellent form and substance; pure bright rosy-lake, the centre and a narrow margin white.

Fig. 2. *KING OF ROSES*: flowers larger, intense rose-colour, slightly margined with light lilac.

Fig. 3. *NEGRESS*: flowers dark-coloured, maroon, the lower petals blotched and pencilled with a lighter maroon.

The variety called *King of Roses* was also raised by Mr. Turner, and proves to be a striking flower. It resembles one called Mrs. Turner, but is considered an improvement on that flower, being also of a better and dwarfer habit. The flowers are of a rich deep carmine-rose, with a whitish or lilac-tinted edge, and in the specimens we have seen, uniformly six-petaled; the form and substance are both good, and the colouring brilliant.

Negress, as its name imports, is one of dark-coloured series, in the way of Musjid and Negro, and is an acquisition to this group. It is more intense in colour than Musjid, and the flowers are better-formed than those of Negro. The upper petals are dark-maroon, the lower ones with paler but yet dark-coloured markings. This variety was also raised by Mr. Turner, by whose courtesy we have been allowed to figure both it and the other kinds we have here represented.

In the cultivation of these plants nothing more than a greenhouse, kept rather warm and close, is requisite. They are naturally of a less vigorous character than the ordinary race of Pelargoniums, and consequently should not be overpotted; indeed pots of very moderate size are sufficient for them. The pots must be thoroughly well drained, and during the winter and early spring water must be given very cautiously and sparingly, so as not to saturate the soil nor chill the roots. A suitable compost for them is made of two parts mellow turfy loam rotted in a dry heap, one part of pure leaf-mould, and one part of thoroughly decomposed cow-dung. To this may be added a considerable proportion—about one part in eight—of silver sand. In potting, small nodules of charcoal may be advantageously mixed among the drainage and compost.

The plants being naturally compact and dwarf in habit, require less pruning than other Pelargoniums; but after flowering they should be pruned in moderately to keep them bushy, and should then be kept rather dry at the root until new shoots begin to form. About July they are to be taken out of the pots, the old soil shaken from among the roots, which may be slightly trimmed, and the plants repotted in smaller pots of fresh soil. They are to be kept in a close moist frame till re-established, then ventilated freely, and finally removed to the greenhouse before severe weather sets in. Cuttings root freely during summer.





PLATE 33.

DOUBLE-FLOWERED PURPLE ZINNIA.

Zinnia elegans, fl. pleno.

The beautiful and entirely novel flowers represented in the accompanying illustration, were sent from Paris during the past summer by MM. Vilmorin-Andrieux and Cie. to Dr. Lindley, and were by him communicated to the Floral Committee of the Horticultural Society. Others of similar character were at the same time exhibited before the Committee, by Messrs. Carter and Co., of Holborn; and both exhibitions were rewarded by first-class certificates. There can be no doubt whatever that the double-flowered Zinnias, in which the ordinary florets of the centre or disk become transformed into flat petal-like coloured ones like those of the ray, will prove valuable as ornamental plants for the flower-garden, the more so as, according to the experience of MM. Vilmorin, they “come as true from seeds as China Asters, the different colours separate, and the double forms still double.”

The plants grown by Messrs. Carter are stated to have been raised from seeds which had been received from a correspondent in Oudh; and those of MM. Vilmorin appear to have been also of Indian extraction, having been obtained from M. Grazan, nurseryman at Bagnères, with whom it was first noticed in 1858, and by whom, it is stated, the seeds had been received among others from India. Nothing more is at present known of the history of these novelties.

The first notice we have of the existence of such handsome forms of Zinnia, occurs in the ‘Gardeners’ Chronicle’ of Sep-

Plate 33.—ZINNIA ELEGANS, *var. FL. PLENO*: flowers various in colour, large, full double, the florets of the disk being transformed into flat petal-like florets resembling those of the ray.

tember 22nd, where it is observed :—"A box from Paris reached us the other day filled with what at first sight appeared to be a new race of Double Dahlias. Upon being unpacked, however, the box displayed a collection of Double Zinnias, of the most beautiful form and colour. Four and twenty flower-heads were there, some nearly double, the greater part as completely so as the best Pompon Chrysanthemums; mostly three inches in diameter, some two and a half inches, a few but two inches. Purple, deep-rose, light-rose, rose-striped, red, orange-red, orange, buff, and various shades of these colours formed a bouquet of singular beauty." It is some of the flowers thus described which are represented in our Plate.

The new forms of Purple Zinnia, like those previously known, are annuals of easy cultivation. They grow from a foot and a half to two feet high, according to circumstances; they have erect hairy stems, furnished with ovate acute stem-clasping strongly-nerved leaves; and they bear large showy terminal flower-heads of various colours, differing from those of the ordinary forms merely in the multiplication of petaloid florets: a change resulting in the production of what is commonly (though in this class of plants erroneously) called a double flower, but in reality consisting merely in the transformation of the inconspicuous florets of the disk into the more showy and differently-formed florets of the ray, exactly like what occurs in the Dahlia, in the handsome race of Chrysanthemum-flowered Asters, and in many other popular flowers.

Zinnia elegans, in the ordinary form, requires generous culture as a half-hardy annual; and this, no doubt, will also be the case with the new race now under notice. The seeds should be sown on a mild hotbed, in March, as in the case of other half-hardy annuals, and the seedlings should be transplanted to store beds or pots, and aided with protection until the end of May, when spring frosts are over. In light rich loamy soils, or in peaty borders, they grow vigorously, but in dry poor soils they do not make satisfactory progress.



PLATE 34.

FRASER'S BEE LARKSPUR.

Delphinium mesoleucum, var. *Fraseri*.

There is now met with in gardens a race of large-flowered herbaceous perennial Bee Larkspurs (so called from the dark-coloured hairy petals of the older sorts resembling a bee lodged in the centre of the flower), obtained by crossing and selection, which altogether eclipse our older favourites of the herbaceous border. Of this race, of which the parents appear to be chiefly *D. grandiflorum*, *cheilanthum*, *mesoleucum*, and some allied kinds, *D. formosum* and *Hendersoni* may be especially mentioned as well known popular kinds, esteemed on account of the large size and brilliant colours of their showy flowers.

Among these improved sorts, *D. Fraseri*, which was exhibited, under the name of Beauty, by Messrs. J. and J. Fraser, of the Lea-bridge Road Nursery, at one of the summer meetings of the Horticultural Society's Floral Committee, must be allowed to take a prominent place. It seems to belong to the race sprung from *D. mesoleucum*, having, like it, white petals and pubescent flower-stalks. In the size and brilliancy of its flowers it vies with *D. formosum*, from which it was raised; but it surpasses that well-known showy sort in the conspicuous purity of its white centre, which affords a striking and remarkable contrast with the intense blue of the rest of the flower.

The habit is exactly that of *D. formosum* when in vigorous growth. The leaves are palmatifidly lobed, with incised segments. The flowers grow in a close elongated spike, and are of large size, the calyx being of a vivid blue, somewhat shaded

Plate 34.—DELPHINIUM MESOLEUCUM, var. FRASERI: flowers in a close spike, very large, deep-blue; the petals white, large, and prominent, the two lower ones bearded and bifid; peduncles pubescent.

with deep violet, and the petals large, distinct, pure white, bifid, furnished near the base with a tuft of yellow hairs. Its most remarkable feature, taken in connection with the large size of its blossoms and its dense flower-spike, is the strong and effective contrast between the pure white petals and the deep blue sepals; and it was in consideration of these peculiarities that the variety was considered deserving of commendation by the Floral Committee already referred to, the plant having been looked on as an improved form of a very handsome race of hardy herbaceous plants. Our figure is taken from Messrs. Fraser's specimens.

Few plants are more desirable for large flower-beds or borders of mixed herbaceous flowers than these comparatively dwarf large-flowered Bee Larkspurs. They all grow freely in rich loamy soil, which is the most congenial to them; and they prefer a situation where the subsoil is cool, and the earth not liable to become parched during the growth of the plant. In fat peaty soil they also grow with remarkable vigour; but good rich garden soil, of a loamy and rather heavy texture, seems most congenial to them. They are propagated readily by division, in spring, after the young shoots have started in growth, and also readily by means of seeds, but the seedlings are more or less liable to variation. In the case of *D. formosum*, which is just now the most generally grown, the seedling plants, if raised early, in warmth, and encouraged by rich soil to make rapid progress, will flower the first year from the seed.





PLATE 35.

BLACK-SPOTTED NEMOPHILA.

Nemophila atomaria, var. *oculata*.

A very pretty and distinct new annual, raised by Mr. F. K. Burridge, of Colchester, and now in the hands of Mr. W. Thompson, seedsman, of Ipswich. The greyish-blue colour of its flowers, and the five large black spots which surround the centre, produce a certain degree of resemblance in the flowers to those of *Roella ciliata*. We are indebted to Mr. Thompson for the specimen here figured.

The stems of the plant are smooth, terete, procumbent, and branching; the leaves opposite, hairy, especially beneath, tapering into a ciliated flattened petiole, obovate in circumscription, deeply pinnatifid; the lobes linear-oblong acutish, simple or two-cleft. The peduncles spring from the axils of the leaves, and are two to three inches long, and somewhat hairy. The calyx is ciliated at the margin, and hairy on the dorsal nerve, consisting of five erect triangular segments, with a short linear recurved lobe in the sinuses. The corolla is three-fourths of an inch or more in diameter, and consists of five obovate petals, which are pale sky-blue, and veiny towards the margins, white below, and marked near the base, each with a large conspicuous black spot breaking out into pencilled lines on the outer edge.

This variety, which is really a very pretty addition to the class of free-flowering annuals, has been obtained from that form of *N. atomaria* which is called *cælestis*, and in which the flowers are pale-blue towards the margin, exactly as they are in the present black-eyed variety, which differs chiefly, albeit in a very

Plate 35.—NEMOPHILA ATOMARIA, var. OCULATA: habit and foliage as in the species; flowers pale-blue, veiny, marked at the base of each petal with a large distinct black spot.

marked manner, in the presence of the large black central spots. It seems likely to become a permanent favourite amongst ornamental dwarf annuals.

The culture of this plant is very simple. The seeds may be sown in the borders in patches where the plants are required to bloom. This may be done during the spring months of March and April, in order to furnish a succession of blooming plants. While yet scarce, the seeds may be sown in pots in a slightly heated frame, the seedlings being transplanted into small pots for planting out in the borders in April or May, or for blooming in pots if required for greenhouse decoration; in which latter case they should be shifted into five-inch pots as soon as they get well established. For early spring-flowering the seeds may be sown in autumn in a dryish sheltered spot, and in winters of ordinary severity the plants will survive, and come into flower very early in the season.

Some of the *Nemophilas*, such as *N. atomaria* and *insignis*, and doubtless the intimately allied kinds also, are plants peculiarly attractive to cats, which in town gardens often damage them by rolling over and crushing them. When this is liable to happen, some protection should be afforded to the young seedlings.





PLATE 36.

VARIETIES OF GLADIOLUS.

Gladiolus gandavensis, vars.

Few flowers are more attractive in gardens during the autumnal months than the fine varieties of *Gladiolus* which have been lately produced under the fostering care of cultivators. They have a richness and gorgeousness of character which is all their own, and a variety of tint and marking which is absolutely enchanting. We very much regret that our page is utterly inadequate to do justice to the effect produced by plants producing their flowers in spikes which are not unfrequently a yard in length, and of which only a few detached blossoms can be imperfectly shown. Those we have selected for illustration were furnished by Mr. Standish, of Bagshot. The variety called *Madame Lesèble*, forming our centre figure, is one of the finest light-coloured French sorts: the others are seedlings bloomed this year by Mr. Standish amongst a very large variety of highly meritorious kinds.

The *Madame Lesèble* *Gladiolus* is a free-growing plant, of medium height, throwing up its flower-spikes successively. The flowers are large and well-formed, with something of a symmetrical arrangement, pure white, beautifully streaked and painted with deep rosy-purple on the three lower segments of the perianth, the segments being broad and of good outline.

Plate 36.—*GLADIOLUS GANDAVENSIS*, varieties:—

Fig. 1. *MADAME LESÈBLE*: flowers large, white, marked with deep rosy-purple on the lower segments.

Fig. 2. *JOHN STANDISH*: flowers large, of remarkable substance, rich deep crimson-scarlet, the lower petaline segment marked with white and flushed with purple.

Fig. 3. *MRS. MOORE*: flowers full size, symmetrically triangular, delicate salmon-pink, the two lower segments white towards the base.

The new variety named *John Standish*, is the most perfect in some points of any we have seen. In the substance of the flower, which equals that of a stout Camellia petal, and in the breadth and smoothness and rotundity of the segments, as well as in depth and richness of colour, it is unapproached; whilst as regards its general form, it wants but little of the perfect symmetry of proportion which has now become desirable. The plant is vigorous in habit, producing a fine truss. The flowers are moderate-sized, rich deep crimson-scarlet, the lower petaline segment smaller, mottled with white and flushed with purple. The form is not quite symmetrical; the three outer or sepaline segments form a triangle with the apex upwards, and in this case the upper sepal is somewhat convex or hooded, while the three inner or petaline segments form a reversed triangle of rather unequal proportions. It is a very showy variety.

The variety which has been named *Mrs. Moore*, also a seedling bloomed during the present year, is one of the most perfect in form of the varieties yet noticed. The plant is of free habit, producing a fine truss of flowers; these are of full size, the three sepaline segments large, equal, forming a symmetrical reversed triangle, *i.e.* with the apex downwards; the three inner ones, of which the upper is the largest, forming a second triangle, with the apex erect. The colour is a delicate salmon-pink, deeper in the petaline segments, the two lower of which are white towards the base, forming a pure centre, and just flushed with purple where the white and the pink colours meet. We consider the form exhibited in the flowers of this variety to be the most effective. A symmetrical arrangement of the parts, either on this plan, or on that of the preceding variety, or on both, with the varieties ranging in two conterminous sections, should be held necessary to perfection in the new kinds now so freely produced.

The varieties belonging to this *gandavensis* group of *Gladiolus* are those best adapted for beds or for planting in masses to bloom during the autumn months. The corms, or 'bulbs,' as they are falsely called, are kept stored dry during winter, and planted out in April or early in May. They will thrive in all good open garden-soils, but especially prefer those of a deep sandy character.



PLATE 37.

DWARF CHRYSANTHEMUM-FLOWERED
ASTERS.

Callistephus chinensis pyrethriflorus.

One can hardly reflect without astonishment on the wondrous power of variation, which is found to be inherent in not a few of the plants which have been brought under the influence of cultivation. The Rose is but a simple five-petaled flower in its natural state, but in the garden its cluster of thread-like stamens becomes converted into a crown of glowing petals. The wild Dahlia is star-like, with a ray of coloured petal-like florets and a disk or "eye" of small yellow tubes, but it was not long grown in our gardens, before the little tubes enlarged, and became broad coloured and petal-like, like the outer series in the wild flower; or sometimes the change took an opposite direction, the outer florets disappeared altogether, the "flowers" became all disk, and lost every pretension to beauty. Changes like these, wrought in some cases in a longer, in others in a shorter period, not in the original individuals, but in their progeny, are familiar to cultivators. Truly there is in plants a marvellous power of change.

It is to this quality that we owe the subjects of our present illustration. The loosely-branching single-rayed China Aster of former days, has all but disappeared, but in departing it has given birth to several distinct and beautiful races, which may be ranged under two principal divisions. In one, the small yellow tubular disk-florets have become enlarged, and have taken on varied colours without losing their form, these being

Plate 37. CALLISTEPHUS CHINENSIS, var. PYRETHRIFLORUS: dwarf, branched from the base: flower-heads large, full, with imbricating, slightly reflexed, strap-shaped florets.

the German or "quilled" Asters of modern times; whilst in the other, the tubular florets have given way entirely to strap-shaped florets like those of the ray, these forming what are known as the French or "tasseled" Asters. Among these latter have appeared a group called the Dwarf Chrysanthemum-flowered, to which our figures belong.

These Dwarf Chrysanthemum-flowered Asters, the habit of which is shown in our illustration, (which represents one entire plant on a reduced scale,) are among the most charming of annual flowers. They grow from four to six inches high, and become branched from the base, so that, with a central stem, and from five to seven lateral branches, each terminating in a large flower-head, the plants form a compact flat-topped bouquet. The more symmetrically formed plants are really pictures of beauty. There are various colours among the flowers, from which we have selected two of the most pleasing, namely, a bright rose-colour, and a deep blue-purple, both having a clear white centre. We think this group of Asters will be particularly adapted for liberal pot-culture, which it well deserves. It will also be valuable for beds or borders where dwarf but showy flowers are desired.

Asters are not difficult of cultivation, provided these two points are constantly kept in view:—1, the soil can hardly be too rich for them, provided it is pervious in texture; 2, the plants should never sustain a check in their growth. If these conditions are secured, success may be looked for confidently. The routine treatment is, to sow the seeds in April in a very gentle warmth, or, failing this, in an open sheltered border; to prick out the young plants thinly into light rich soil, as soon as they are large enough to be handled readily; to afford slight shelter, if raised in a warm place, until summer weather has set in; to plant out thinly in light, porous, well-enriched soil; to guard against attacks of green fly, using preventives and remedial agents as from time to time required; to water assiduously during hot parching summer weather, weak liquid manure being occasionally desirable; and, when unusual excellence is desired, to shade slightly from very powerful sunshine. Very satisfactory results may however be usually obtained by attention to the enrichment of the soil, and the prevention of insect attacks.



PLATE 38.

NEW PICOTEES.

Dianthus Caryophyllus, vars.

For the varieties we have figured in the accompanying Plate, which are some of the most striking of those which have been exhibited at the metropolitan meetings during the past season, we owe our obligations to Mr. Turner, of Slough, and Mr. Keynes, of Salisbury.

Our figure 1 represents a variety called *Standard*, raised and exhibited by Mr. Keynes. This is a very showy flower, of full size and good properties, the petals bold and firm, and evenly edged with a narrow line of purple. Altogether the style of the flower is very pleasing, the marking, though light, being of a decided character.

The other varieties, named *Princess Alice* and the *Rev. H. Matthews*, were raised by an old and very successful grower, Mr. G. Kirtland, of Bletchington, Oxon, and were, we learn, placed for trial in the hands of Mr. Turner, by whom they were produced in fine condition at one of the meetings of the Floral Committee of the Royal Horticultural Society. They are described as being remarkably free-growing sorts.

The *Princess Alice* produces full-sized flowers, of excellent properties, and dissimilar to all others; the markings are 'heavy,' that is, there is a considerable amount of colour distributed around the edge of the petals, and this colour is what is called a bright scarlet, and is in fact a bright light rosy-red. This variety was awarded a first-class certificate by the Floral

Plate 38.—DIANTHUS CARYOPHYLLUS, varieties (Picotees):—

Fig. 1. STANDARD (Keynes): light purple-edged.

Fig. 2. REV. H. MATTHEWS (Kirtland): rose-edged, moderately heavy.

Fig. 3. PRINCESS ALICE (Kirtland): heavy scarlet-edged.

Committee, and is considered by connoisseurs as being very much superior to any variety hitherto known in the class of heavy-edged scarlet varieties.

The *Rev. H. Matthews* was also awarded a first-class certificate by the Floral Committee, and is a noble flower, the finest of its class—heavy-edged rose. It is described as being remarkably robust in habit, capable of producing three to four full-sized flowers to a stem. The flowers are individually large, full, and well-proportioned, with broad gently-cupped petals of perfect shape, and margined with bright rose-colour, forming a moderately heavy edge.

We cannot do better than occupy the remainder of our space by a few calendarial hints, culled from a series of practical instructions on the cultivation of these lovely flowers, which hints we shall have an opportunity of completing hereafter:—

January.—Give plenty of air; never close the frames day or night, except during severe frosts. In such weather a covering of one or two mats will be ample.

February.—Give a thorough cleaning, and, if mild weather, water those showing symptoms of dryness. Draw the lights completely off at every favourable opportunity.

March.—Pot for blooming in prepared compost, using thoroughly drained pots, and making the soil firm. These repotted plants must be protected from rains; but those in smaller pots may have mild rain freely.

April.—Complete the potting for bloom; stake tall growers, and place the pots at once in the shelter prepared for them, setting them quite level, that the soil may be equally moistened in watering.

May.—If warm and dry weather prevails, give copious waterings, otherwise not; destroy green fly; remove decaying foliage; place down the blooming sticks; stir the surface of the soil frequently and carefully when dry.

June.—Tie up the stems loosely as they grow; destroy green fly and spittle fly; syringe liberally; top-dress with equal parts mellow loam, leaf-mould, and well decomposed manure. Disbud immediately the laterals can be removed, leaving as a rule the main bud, and those proceeding from the third and fourth joint, counting from the top,—that is, assuming three flowers are to be left. Under-sized and weakly varieties should carry one bud only; thin flowers two; flowers full of petals three, and a few very large sorts, four buds on a stem.



PLATE 39.

MAGNET AZALEA.

Azalea indica, var.

This variety of Indian Azalea is described by Mr. Barnes, of Camberwell, by whom it was raised, and to whom we are indebted for the specimen figured, as a very free-blooming, hardy kind. The plants, he observes, were kept in a cold pit through last winter, and on several occasions were much frozen, but this did not appear to injure their blooming. A small plant, covered with the remarkably large and showy flowers, was exhibited during the past summer, and received a commendation as a fine variety for decorative purposes, from the Floral Committee of the Royal Horticultural Society.

Judging from the examples we have seen, this appears to be a compact dwarf-habited variety, flowering very freely while of small size, and therefore well adapted for general cultivation as a conservatory ornament. The flowers are large, measuring upwards of three inches across; they are of firm texture, and of good form, the segments of the limb being broad, rounded, and overlapping, an inch and a half broad; the colour is a deep rosy salmon-pink, the flowers being marked on the upper segment with rosy-purple spots. The variety is something in the way of one called Sir C. Napier, but is considered superior to it in regard to its decorative capabilities. It appears to be a late bloomer, and is certainly very prolific of flowers, as well as hardy and vigorous in constitution, and altogether one of the most useful for general cultivation of the varieties which have as yet been raised.

Plate 39.—AZALEA INDICA, *var.* MAGNET: habit dwarf, and very free-blooming; flowers large, firm, and well-formed, deep rosy salmon-pink, spotted with rose-purple on the upper segments.

We have already, under Plates 14 and 25, given Mr. Kinghorn's instructions for the cultivation of Indian Azaleas; to these we may add a few remarks from other sources.

A very successful cultivator has recommended a compost consisting of peat loam and leaf-mould in the proportions of three measures of the first, to one of the second, and a half-measure of the third, adding about one-fourth of a measure of silver-sand, the whole broken up and blended by passing it through a sieve with one-and-a-half-inch meshes. In shifting the plants from one pot to another, the collar of the plant should be kept about half an inch above the surrounding soil, so that no water may lodge about it. Ample drainage, especially for large plants, is most important; for pots of a foot or more in diameter two or three inches of clean drainage material is not too much, and this should be covered by a layer of the coarser fibrous parts of the soil, so as to prevent the finer particles from being carried down in watering. In the case of healthy plants, the old ball of earth is not to be reduced in repotting except so far as to rub away some of the surface-soil, and to disengage some of the outer fibres; it is not important to remove the whole of the crocks when it cannot be done without damaging the roots.

After potting, which is to be done when blooming is over and the plants are starting into growth, and in which process the soil should be made firm, the plants are recommended to be placed in a house or pit with gentle warmth—from 50° to 60° , where they are to be well syringed morning and evening, ventilating freely in the early part of the day if the weather is favourable, and closing early in the afternoon. In this pit they may remain till the beginning or middle of August, when they should be hardened off gradually so as to get the wood thoroughly ripened before winter. In this state they may be safely kept in a much lower temperature until February, when they should be examined, and those which require it shifted, the stronger shoots being stopped when requisite, and the rest regulated and trained into the form required. The plants are then again to be placed in the warmer temperature. The same course may be pursued in the second year. By the third or fourth season, under this treatment, they will have made strong bushy plants, and will not then require shifting so frequently.





PLATE 40.

PROFUSE-FLOWERED STATICE.

Statice profusa.

This handsome Statice, which is of hybrid origin, was raised in the Lothians, and first made its appearance in the south at the exhibition of the Royal Botanic Society, in May last, when it was exhibited by Messrs. Parker and Williams, of Holloway, who hold the larger portion of the stock, and whose plants furnished the specimens from which our figure and description are taken. It was on this occasion rewarded by a medal. Subsequently, in the month of November, two very finely-grown plants, covered with flowers in all stages, were exhibited at a meeting of the Floral Committee of the Royal Horticultural Society, on which occasion it was commended as a very useful ornamental plant. These specimens, it was reported, had been continuously in bloom for fifteen months previously, and they were rewarded specially for this perpetual blooming habit.

The parents of *Statice profusa* are *S. puberula* and *S. Halfordii*, the latter a garden variety or hybrid, less robust than *S. macrophylla*, but partaking of the character of that species, from which it appears to have originated. *S. profusa* is intermediate in size and habit between its parents, being larger in growth, and having longer leaves and taller stems than *puberula*, and being smaller than *Halfordii*, with the leaves much narrower

Plate 40.—STATICE PROFUSA: hybrid between *puberula* and *Halfordii*; suffrutescent; leaves oblong or spathulately oblong-obovate, subundulate, sub-sinuated, somewhat scabrous, ciliated, and furnished with scattered stellate hairs on both surfaces; scape ancipital or narrowly winged, corymbosely branched, slightly hairy below, more so upwards, the branchlets springing from ovate, carinate, pubescent, ciliated, aristato-mucronate bracts, resembling the outer pair at the base of each flower; inner floral bract cylindraneo-truncate, pubescent, ciliated, carinate, the midrib evanescent near the apex.

in outline. It is shrubby at the base of the stem, and furnished with oblong, or spathulately oblong-obovate undulated leaves, which are somewhat rough, and sprinkled with scattered stellate hairs on the surface, with a ciliated margin. The flowering stems are from a foot to two feet high, narrowly winged, scarcely more than ancipital, branched above, forming spreading corymbose heads of flowers, which consist of a purple calyx and white corolla, very much like what occurs in the allied plants.

The merit of this new variety, which will become an invaluable plant for the decoration of warm greenhouses and sitting-rooms during the autumn and winter, and a useful auxiliary pot-flowering plant at other seasons, consists in its moderate proportions, which are yet large enough to be effective, but more especially in its habit of profuse and continuous blooming. There is in cultivation a kindred but spurious hybrid, from the same source, very much resembling this in foliage and blossoms, but which has not the same property of perpetual blooming.

Not the least of the good qualities this *Statice* possesses is the facility with which it may be cultivated. Mr. Parker recommends, in order to secure strong plants for the ensuing season's bloom, to propagate in August or September, taking the young side-shoots with heels, and inserting them in pure sand in pots or pans prepared as is usual for propagating purposes. They are then to be plunged in a close frame, with a temperature of 65° , and a moderate amount of bottom heat. As soon as well-rooted, the young plants are to be potted off into three-inch pots, in a compost of equal proportions of light loam and well-decayed leaf-mould, with the addition of a little silver sand and peat. As soon as they fill these, and each successive pot, with roots, they are to be shifted on, and kept growing all the winter in a temperature of 60° , and in a light situation. By this treatment they form large bushes in eleven-inch pots by the middle of May, and will keep up a profuse succession of bloom from that time till midwinter, and even all through the winter, if placed in a temperature of 55° . When finally repotted a small proportion of rotten cow-dung is to be added to the soil already named, and a less proportion of leaf-mould used; and when the plants get pot-bound, an occasional watering of weak liquid manure is beneficial.





PLATE 41.

INCURVED-FLOWERED EVERLASTINGS.

Helichrysum bracteatum incurvum.

The yellow and white-flowered New Holland Annual Everlastings, called by botanists *Helichrysum bracteatum*, have long been garden favourites,—a position subsequently shared by an allied plant called *H. macranthum*, from the Swan River, having white rosy-tipped flower-heads, the latter being evidently a mere variety of the former, somewhat larger and differently coloured. This plant however introduced the element of change, and its flower-heads being found to vary in colour, in size, and in the form and proportion of their parts, the best forms have been selected by growers, until at length have been obtained the beautiful objects represented in the accompanying Plate, which was prepared last summer from plants growing in the garden of the Royal Horticultural Society, to which they had been contributed by various seedsmen under the following names:—*H. macranthum nanum*, *H. macranthum compositum maximum*, *H. compositum maximum*, *H. compactum maximum*, and *H. bracteatum nanum ferrugineum*.

The plants, like the common Everlastings, are tall-growing annuals, moderately branched but very little spreading, the branches being short and erectish; they are clothed with elongate or oblong-lanceolate wavy roughish leaves, which at the base are slightly decurrent on the stem. The flower-heads are terminal on the branches, a few smaller heads branching

Plate 41.—*HELICHRYSUM BRACTEATUM*, *var. INCURVUM*: habit and foliage that of the species; flower-heads large; involucral scales very numerous, the inner ones (several series) smaller and narrower than in the species, incurving over the disk.

H. BRACTEATUM, *var. INCURVUM*, *Moore, Proceed. Roy. Hort. Soc. i. 314.*

H. MACRANTHUM COMPOSITUM MAXIMUM, *of gardens.*

out beneath the principal ones, more or less abundantly according to the vigour of the plants. On the stronger ones the terminal flower-heads are very large, distinctly larger than those of all the older forms, measuring as incurved from two to two and a half inches across. The dry coloured involucral scales on the exterior part of the head do not differ materially from those of the common Everlastings, except that they are more abundant and arranged in more numerous rows, and are perhaps rather smaller and more closely imbricated; a very much larger number of the smaller narrow inner scales are also produced and these, instead of spreading, so as to expose the disk wholly to view, curve inwards gracefully over each other, so as to conceal the greater part of it. This incurving gives the heads a much richer effect than that produced by the common sorts in which the disk is exposed; they are also very much more beautiful in the dried state, the incurving of the scales being permanent. The colours of these scales appear to be very variable and sportive, though it is not improbable that they may, by close selection, eventually become more or less fixed and permanent, so that the different varieties may be preserved distinct from each other. Among the plants from which our sample was selected, the colours included different shades of yellow, sulphur, cream, white, pink, rose, crimson, and a kind of coppery-red.

These beautiful objects are of the easiest culture. Grown as ordinary half-hardy annuals, they merely require to be sown in the flower-borders in April; or they may be raised in a sheltered bed, and transplanted into the borders where they are to bloom. The soil should be rich and light, the situation open, and the plants not too much crowded. Raised in a frame with a slight warmth, and pricked out into pans, and eventually potted two or three together in pots of rich earth, they make very handsome plants for standing in the greenhouse, and the heads of flowers are very fine under this mode of treatment; but they must be kept clear of insects, and well ventilated to prevent them from getting drawn up.





PLATE 42.

PURPLE STANDARD LOBELIA.

Lobelia fulgens, var.

The tall perennial Lobelias, of which our Plate represents a very beautiful form, were once more generally cultivated than they now are. And yet among hardy herbaceous plants there are few more brilliant and attractive families—very few indeed that can yield a match for the vivid scarlet of *Lobelia fulgens* and many of its varieties.

The subject of the accompanying figure is one of the best and most novel of the forms bred from this species. It was raised by Mr. Kinghorn, of the Sheen Nursery, Richmond, from the scarlet variety called St. Clair, crossed by the dwarf blue-flowered *L. Erinus speciosa*, and possesses the large flowers and vigorous habit of the first; but though the progeny yielded flowers of various colours from lilac to crimson, the plants have neither in habit nor in the colour of their flowers any resemblance to the latter, though we are assured the cross was very carefully effected. The flowers in the present variety are remarkably fine in form, and gained for it a first-class certificate when exhibited last August before the Floral Committee of the Royal Horticultural Society.

The plant is a perennial of robust character, requiring in winter protection rather against damp than cold. The stems, which under liberal culture grow about four feet high, are erect, branched, furrowed, and of a green colour, the upper part forming a long leafy raceme. The leaves are green, lanceolate, attenuated at the point, and obscurely toothed, the upper ones, in the axils of which the flowers are produced, being shorter

Plate 42.—LOBELIA FULGENS, var. PURPLE STANDARD: flowers large, deep reddish-purple, with white eye.

and smaller, ovate-lanceolate in outline, with a wavy obscurely toothed margin. The flowers are numerous, forming a tolerably close raceme, which in our specimen was nearly two feet long. The corolla-tube is three-fourths of an inch long, split along the back; the segments of the upper lip erect, lanceolate, those of the lower lip oblong acute, all having a central nerve. These flowers are of a bright reddish-purple colour, with a pale or whitish blotch on the lower lip, just about the mouth of the tube. The principal merit of the variety, which is certainly a very fine one, consists in the large size and fine form of its flowers, and in their pleasing and novel shade of colour.

To have them in perfection, these tall herbaceous *Lobelias* require very liberal culture. The methods described in the horticultural periodicals thirty years since were eminently successful. One of these was to take off the suckers in November, pot them singly in four- or five-inch pots, and plunge them in a warm bed, in a temperature of about 55°. These pots were filled with roots by the middle of January, when they were shifted into larger ones; they were again shifted in February and in April, this last time using eleven- or twelve-inch pots. The plants were well supplied with water, and kept in a vinery till the beginning of June, when they were moved to a greenhouse. The compost used was equal parts sandy loam, leaf-mould, and peat. They grew six feet high, with stems eight inches in circumference at the base, covered with branches five feet long, all beset with flowers, the plants continuing in bloom from July to October.

Another simpler plan was to take up the old plants in autumn, and pot them in sand, placing them where they might be kept from frost and damp. Early in March the offsets were potted in small pots in sand and leaf-mould, and plunged in a frame with slight bottom heat, where they soon rooted and formed plants fit for planting out towards the end of April. They have a fine effect planted in groups, the colours separate. They should be planted in rough rich loamy soil, and require a very abundant supply of water while growing. The least protection will suffice in winter. Mr. Kinghorn mentions having a quantity merely laid in at the foot of a wall, the crowns being covered with earth, which are uninjured by the past winter, and are now pushing up suckers freely.



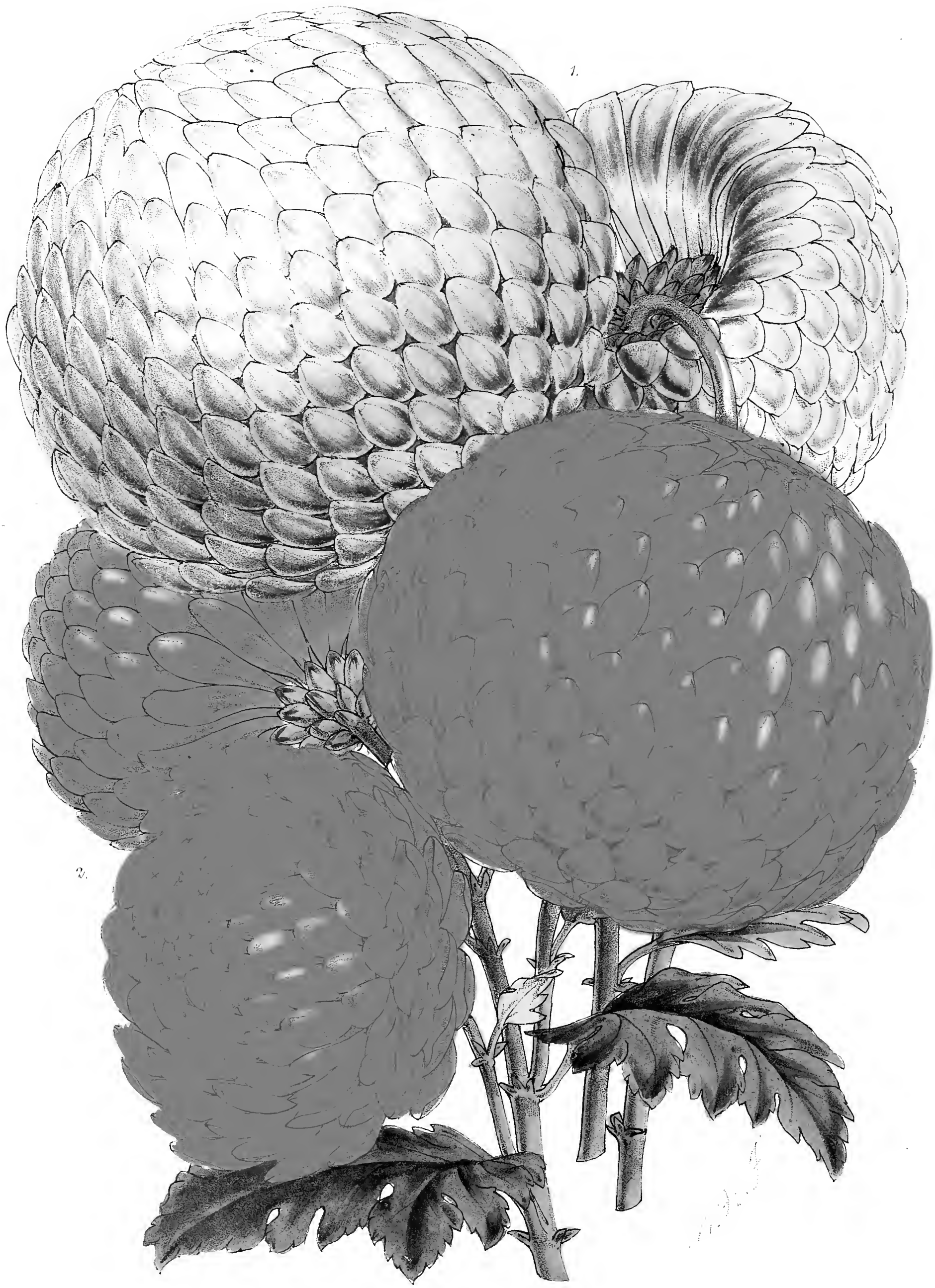


PLATE 43.

NEW CHRYSANTHEMUMS.

Pyrethrum sinense, vars.

The beautiful varieties of Chrysanthemum which we have now the pleasure to figure, and which have been called *Lady Hardinge* and *Little Harry*, have each received a well-merited first-class certificate from the Floral Committee of the Royal Horticultural Society. We are indebted for the opportunity of presenting portraits of them to our readers, to Mr. Salter, of the Versailles Nursery, Hammersmith, who is well known as one of the leading growers of these valuable autumn flowers, and who is the fortunate possessor of them. Both varieties bloomed finely in his winter garden last autumn.

Lady Hardinge is a tall-growing variety, raised by Mr. Clark, and is remarkable for the depth of its large, incurved, delicate rose-coloured flower-heads, which in the younger stages have the florets tipped with cream-colour, and naturally incurve to form a beautiful crown or centre. It is a valuable addition to the class of light flowers, and will be a fine variety either for the production of cut blooms for exhibition, or for growing as a specimen plant.

Little Harry is of a different habit, being remarkably dwarf, compact, and free-flowering. For pot culture, as an exhibition plant, as well as for decorative purposes, it is probably unsurpassed; while its finely incurved flower-heads, of medium size and of a golden-amber colour, are models of form, the florets being stiff, smooth, and finely incurved.

Mr. Salter has very obligingly supplied us with the following

Plate 43.—PYRETHRUM SINENSE, varieties:—

Fig. 1. LADY HARDINGE: flower-heads large, full, with a very high crown of incurved florets, delicate rose-pink tipped with blush.

Fig. 2. LITTLE HARRY: habit dwarf; flower-heads medium-sized, the florets stout, finely incurved, bright golden-amber or orange-yellow.

lists of the most suitable varieties to be cultivated for obtaining fine specimen 'blooms' and specimen plants. Those mentioned in the first list will yield fine 'blooms,' the flower-heads being large and spherical in consequence of the florets being naturally incurved; under good cultivation they will measure from four to six inches in diameter:—

Alarm: rich crimson, high centre, broad florets; one of the best dark flowers either for cut blooms or specimen plants.

Alfred Salter: pale rose-lilac, large and very full; a first-rate flower, beautifully incurved.

Cassandra: pure white with rose tips; florets of great substance; one of the best light flowers for blooms or specimens.

General Hardinge: Indian-red with gold back, large broad florets, beautifully incurved; unrivalled for cut blooms.

Hermine: silvery-white with delicate rose tips, full, constant.

Jardin des Plantes: deep golden-yellow, florets broad, finely incurved; fine for blooms or specimens.

Nonpareil: delicate rose-lilac, full, finely incurved.

Pio Nono: Indian red, large, full; very fine for cut blooms or growing out-of-doors.

Queen of England: blush, large, full and finely incurved; a noble flower for cut blooms and for the conservatory.

Themis: blush-shaded pink, large, very full; one of the best late varieties for cut blooms.

Yellow Perfection: clear golden-yellow, finely incurved; suitable for cut blooms or specimens.

Vesta: pure white, very full, beautifully incurved; a gem for the conservatory, and equally valuable for cut blooms.

The varieties with reflexed flowers are to be generally recommended for specimen plants, being of bushy habit, having persistent foliage, and yielding a profusion of bright-coloured blossoms, which renders them more attractive for decorative purposes. Of this class Mr. Salter recommends—

Alma: bright rose-carmine, large, full; fine habit.

Annie Salter: canary-yellow, full; one of the finest for specimens.

Atalanta: cream tinted with rose, large, fine.

Baron Scalebert: rose-lilac with lighter edge, large, full, and showy.

Cassy: orange and buff, early, very double and free; excellent either in the border or under glass.

Chevalier Damage: bright golden-orange; dwarf specimen.

Julie Lagravère: crimson-scarlet, not large, but very fine; of dwarf habit and brilliant colour.

Mr. Murray: violet-rose, a new colour, full and attractive.

Pearl: delicate pearl-white, good habit.

Prince Albert: crimson-red, large, full; fine for specimens.

Sulphurea superba: sulphur-yellow; an attractive late variety.

Wonderful: bright cherry-crimson, large and full.

Some further observations on the important operation of dis-budding for the production of fine show 'blooms' will be found under our next Plate.





PLATE 44.

COMTE DE FALLOUX ROSE.

Rosa (hybrida).

Mr. Fitch's admirable portrait will be a sufficient encomium on this beautiful Rose, which was raised by M. Trouillard, of Angers, a gentleman who has been singularly fortunate in originating some of the very finest seedling Roses known, at present, in cultivation.

The *Comte de Falloux Rose* is a seedling obtained from the well-known and universally admired Hybrid Perpetual called *Géant des Batailles*, which it very much resembles in shape. It has even still more brilliant flowers, and is in reality a very fine cupped variety, of a bright scarlet-crimson colour. The entire stock is now in the possession of Mr. Standish, of the Royal Nursery, Bagshot, who has, we are informed, purchased it, along with several other fine varieties, of M. Trouillard; and we are indebted to this gentleman for the specimens from which our drawing has been made.

One of the most desirable qualities attributed to this new Rose is its remarkable floriferous habit. On two or three occasions small worked plants have been exhibited, bearing what under the circumstances were very fine flowers; and Mr. Standish describes the constant habit of the variety as being the most floriferous of any he has seen. "No matter," he observes, "whether summer or winter, it never makes a shoot but there is sure to be a flower on the top of it. It could be made to bloom throughout the winter, and consequently will be the best of all pot Roses for forcing." This quite agrees with all we have seen of it.

Though generally classed with the Hybrid Perpetual group,

Plate 44.—ROSA (*hybrida*) COMTE DE FALLOUX: flowers cupped, bright scarlet-crimson, resembling those of *Géant des Batailles*, but finer.

Mr. W. Paul places the parent of the present variety in a group which he names after the Rose called Gloire de Rosomène, and traces back to *Rosa indica*. The Hybrid Perpetuals themselves seem to have arisen from the blending in a very gradual way, and through a long course of generations, of the Chinese or Indian with the Damask Roses, all trace of the originals being nearly or quite obliterated by the completeness of the fusion which has taken place. In whatever way originated, they form a most valuable section of the family for garden purposes.

We learn that the *Comte de Falloux* is a tractable variety under cultivation. It grows well, we are told, grafted on the Manetti stock, or when struck from cuttings; but as far as his experience has yet gone, Mr. Standish thinks it will be best where worked on the Manetti. Like all Roses, it will amply repay liberal treatment.

We avail ourselves of the present vacant space, to add to the information we have been enabled to offer under our preceding Plate on the best varieties of the large-flowered race of Chrysanthemums, some memoranda on the very important subject of disbudding with which Mr. Salter has been good enough to furnish us:—

To grow specimen blooms successfully, the nature of the variety should be well understood. Some varieties produce the best blooms from the crown or centre bud, while of others the laterals produce the best. Generally those which have very double flower-heads with coarse or confused florets should have the centre one removed and the second or side bud retained; while those of more delicate habit should have the side buds taken away and the centre one retained.

The following lists are offered as a guide in this particular to those who are unacquainted with the habit of the best varieties:—

Varieties of which the centre bud should be retained:—Alfred Salter, Anaxo, Alarm, Aimée Ferrière, Cassandra, Formosa, Glory, Golden Queen of England, General Hardinge, Jardin des Plantes, Lutea formosa, Madame Lebois, Maréchal Duroc, Mrs. W. Holborn, Nonpareil, Queen of England, Queen of the Isles, Quintus Curtius, Raymond, Themis, Yellow Perfection.

Varieties of which the centre bud should be removed:—Auguste Mie, Christophe Colombe, Fabius, Hermine, Léon Leguay, Le Prophète, Lysias, Miss Kate, Novelty, Nell Gwynne, Pio Nono, Trilby, Vesta.



PLATE 45.

VARIETIES OF PELARGONIUM.

Pelargonium (hybridum).

The varieties of *Pelargonium* now figured include some further examples of the more meritorious of those brought forward at the Metropolitan exhibitions and floral meetings during the last blooming season, when our drawings were made.

That which bears the name of *Mulberry*, was raised by the late lamented E. Beck, Esq., to whose courtesy we owe the opportunity of figuring it, and of whom it will now stand in our pages as a memorial flower. To our taste, this is one of the most charming varieties which the past season produced; but it was not shown until the plant had become nearly exhausted, and therefore less effectively than might have been the case. The flowers are of full size, well-formed, firm, smooth, and of fine satiny texture, rose-colour pleasingly suffused with blue, and marked on the lower petals with small crimson spots, which run out into branching lines and patches of the same colour near the margin. The upper petals are of a rich dark satiny maroon-colour, with a very narrow even border or belt of bright rose-crimson. The centre of the flower is white. It is a very showy and attractive plant.

We have already figured (Plate 21) a free-blooming and very ornamental white variety, called *Modesty*, also one of Mr. Beck's flowers. The white variety now represented, called *Queen of*

Plate 45.—PELARGONIUM (*hybridum*):—

Fig. 1. *MULBERRY*: upper petals maroon, edged with rose-crimson, lower ones rose with a bluish tint, veined and spotted with crimson; centre white.

Fig. 2. *QUEEN OF ENGLAND*: flowers white, the upper petals marked with a small spot of purplish-rose colour.

Fig. 3. *MRS. PONSONBY MOORE*: flowers small, deep bright rose-crimson, with large black spot on the upper petals, and smaller one on the lower, those of the latter passing into veins at the base.

England, has some resemblance to it, but is distinct in character, and will, if we mistake not, also prove a useful addition to this class of flowers, which is in great need of being replenished. The Queen of England was raised and exhibited by the Messrs. Dobson and Sons, of Isleworth, from whose specimens our drawing was made. It is a variety of vigorous habit, producing large bold trusses of flowers, which are of a good average form, tolerably smooth and even, firm in texture, pure-white, with a small, old-fashioned spot, rather broken into pencilled lines below, of a purplish-rose colour.

The variety called *Mrs. Ponsonby Moore* is a charming little decorative sort, without any pretension to the qualities of a florist's flower. The habit is dwarf and free. The flowers are of moderate size, and of a deep bright rosy-crimson colour. On the two upper petals is a large blotch of intense black, but not so large as to occupy more than about half of the surface of the petals; on each of the lower petals is a smaller spot of black, which passes into a few feathered lines extending to the base of the petal. Both at the exhibition at the Crystal Palace and at the Regent's Park, where it was exhibited, the variety obtained the highest awards given to this class of plants. The merit of the plant consists in its dwarf free-blooming habit, and its bright and strongly-contrasted colours, which render it a very ornamental object for conservatory decoration. We are indebted to Mr. Veitch, of the Royal Exotic Nursery, Chelsea, for the specimens figured. The variety is of Devonshire origin, having been exhibited from Messrs. Veitch and Son's Exeter Nursery.



PLATE 46.

VARIETIES OF CLARKIA.

Clarkia pulchella, vars.

Annual flowers, if not possessing the intrinsic value which attaches to many other popular classes of plants, have at least this recommendation, that they are not generally difficult of access; and hence they may be made to throw a gleam of that gorgeous effulgence which more permanent and more costly subjects impart to gardens of a higher class, across the humble plots of the cottager and the artisan, and they may also be made to cast in their mite to the treasury of summer beauties in many a suburban parterre. They are pre-eminently flowers for the million; and in very many cases, are not to be despised even by the millionaire.

The *Clarkia pulchella* has long been known as one of the more showy of the plants of this class, hardy in so far as regards its treatment as a border annual, requiring merely to be sown moderately thin, in spring, in tolerably good garden earth. This plant has shown considerable disposition to sport, and our plate represents some of the forms these variations have taken, for which we are indebted to Messrs. Carter and Co., seedsmen, of Holborn.

The varieties now represented do not differ, either in habit or in the general characteristics of the plant, from the ordinary form of the species, and therefore these features need not be

Plate 46.—CLARKIA PULCHELLA, varieties:—

Fig. 1. INTEGRIPETALA: petals entire on the margin, rosy-purple.

Fig. 2. PULCHERRIMA: petals three-lobed as in the type, bright crimson-tinted rose.

Fig. 3. STRIATA: petals three-lobed, white flaked with rose.

Fig. 4. MARGINATA: petals three-lobed, rosy-purple, the lobes tipped with white.

described. It is in the flowers that the differences are found to exist. The variety *integripetala*, as its name implies, is entire-petaled; that is to say, the two deep gashes which separate those of the ordinary form into three lobes are absent, and the whole petal is in one piece, the outer margin forming a segment of a circle, with a slightly repand or wavy outline, while the base forms a claw in the usual way. It is a fine showy plant, with the colour of the old *C. pulchella*, perhaps liable to vary somewhat, but in the best plants, or those which come in true character, very distinct and ornamental.

The variety called *pulcherrima* differs from the common form only in size and colour. The flowers are larger, or at least of the largest size in which the flowers of this species are met with; but instead of being of the ordinary purplish tint, they are of a deep bright crimson-tinted rose-colour, and very rich and effective when seen in a mass. It is a highly decorative variety.

The varieties *striata* and *marginata* are rather curious fancy flowers than showy decorative plants, but they are not without their own peculiar interest. In the former, the flowers, which are of the ordinary form, are white, moderately striped with flakes of rosy-purple, while in the latter the base of the petals is of the usual rosy-purple colour, while the tips of the lobes, extending down nearly to the point where they unite above the claw, are white. The one, therefore, is white striped with purple; the other purple tipped with white. This latter variety is much inclined to sport, and requires to be carefully selected for seeding in order to maintain its proper character.

These plants only require to be sown in the open border in March or April, in soil not liable to become parched, and of tolerable fertility.



PLATE 47.

GOLDEN-PLUMED COCK'S-COMB.

Celosia (cristata) aurea.

We are indebted to Mr. Turner, of Slough, for the opportunity of presenting our readers with a portrait of one of the moderate-sized plumes of this very ornamental plant, which, though an old inhabitant of our gardens, is not nearly so well known as its merits deserve.

The plant is a tender annual. The specimen from which our figure was taken was about three feet in height, branched to the base, and forming a bushy mass a yard or more in diameter, each of the numerous stems and branches being terminated by one of the pyramidal feathery heads. The stems are branched, of a very pale-green colour, and striated, bearing stalked leaves four or five inches long, of an elliptic-lanceolate figure, attenuately acuminate, wavy at the margin, and of a pale or yellowish-green colour. The inflorescence is compoundly pyramidal, terminating the main stems and their branches, the larger heads massive but feathery, thrice-branched, the principal head, the branches, and branchlets all having a pyramidal outline with the apex lengthened out into a tail-like point. The whole of this plummy mass is of a rich orange-yellow. The coloured part consists exclusively of barren bracts, small and pointed, thickly set upon and spirally convolute around the branched axes of the inflorescence. On the lower part of the branches a few perfect seed-bearing but altogether inconspicuous flowers, having a perianth of five lanceolate acuminate membranaceous colourless segments, are produced.

Plate 47.—CELOSIA (cristata) AUREA: annual; leaves elliptic-lanceolate, acuminate, wavy; inflorescence golden-yellow, compoundly branched, pyramidal; the branches and branchlets pyramidal and caudate, not cock's-combed sterile bracts small pointed and spirally convolute around the axis.

Though in its present state very unlike the common garden Cock's-comb, it is more than probable that this plant is really a variety of the species from which that has sprung. In an early plate we shall offer an illustration of a feathered crimson *Celosia* which is strongly suggestive of such relationship; and we have received from Mr. Thompson, of Ipswich, a branchlet of that now figured, in which the tail-like point has become dilated or crested after the manner of the common Cock's-comb. The plant is common in India, where it is called *Huldee Moorga*. It has long been cultivated in gardens, but probably from unskilful management has, till quite recently, remained comparatively unknown. A more beautiful object, however, than a fine branched specimen, loaded with its golden plumes, as was the case with the plant from which the small branch we have figured was taken, it is scarcely possible to conceive; and flowering as it does in early autumn, when indoor flowers of effective colour are becoming scarce, it is an important decorative plant, adapted especially for warm conservatories, in which a dryish atmosphere is at that season maintained, and in which the plant may be kept for several weeks in an attractive condition.

The culture is that of other tender annuals, such as the common Cock's-comb. The seed is to be sown in February or March, in a cucumber-frame or warm forcing-pit. The young seedlings, which come up in succession for some time, are to be potted into small pots as soon as large enough to be handled, and then shifted successively as fast as the roots begin to feel the sides of the pots; the principle to be kept in view being, never to let them get dry, or pot-bound, or to receive any other check, but to keep them growing on without intermission. They should be kept in a moist genial temperature of about 65° or 70°, and potted in a compost of turfy loam, enriched by the addition of about one-third of well rotted manure or such fertilizing agents as deer or sheep droppings, with a moderate addition of sand. Good plants may be grown in eleven-inch pots.

The chief enemy to contend with in the cultivation of the plant is the acarus, or red spider, which attacks this as it does other Cock's-combs. The best remedy is good cultivation; that is, rich soil, a warm moist temperature, and no check.





PLATE 48.

NEW CARNATIONS.

Dianthus Caryophyllus, vars.

The accompanying figures represent two very handsome new varieties of Carnation, which were exhibited last season before the Floral Committee of the Royal Horticultural Society.

The variety named *Rose of Castile*, was raised by Richard Headly, Esq., and was exhibited by Mr. Turner, of Slough, to whom we are indebted for the blooms which our artist has portrayed. The beautiful flowers brought under the notice of the Floral Committee were unanimously awarded a first-class certificate. They were large, and sufficiently well-filled with petals, these being broad, smooth, and firm, the ground, colour pure white, boldly marked with tolerably regular and equal flakes of a rich bright rose-colour. It is a brilliant and attractive variety, worthy of being introduced into the choicest collection, and appears to be of vigorous habit.

The variety *Pre-eminent* was raised and exhibited by Mr. Keynes, of Salisbury, and is a pretty flower, of good properties, the petals being sufficiently numerous to form a well proportioned flower, broad and even, and regularly marked with flakes of rich purple. It is desirable for general cultivation, on account of its rich colour and the bold character of the markings.

We may take this opportunity to conclude the brief selected calendarial hints commenced under Plate 38, and which apply equally to both Carnations and Picotees:—

July.—This is the blooming month. The buds must be watched, and as they give signs of reaching maturity, they must be tied to prevent the burst-

Plate 48.—DIANTHUS CARYOPHYLLUS, varieties:—

Fig. 1. ROSE OF CASTILE (Headly): rose-flake, of large size, fine form and marking.

Fig. 2. PRE-EMINENT (Keynes): fine purple-flaked, heavily marked.

ing of the pod, for which purpose strips of soft bast matting are the best material that can be used. Water must be given freely when required, so that the plants may not suffer from drought at the period when the demand on their powers is at the strongest. The buds should be syringed freely until they begin to show colour, and then both moisture and sunshine must be kept from them. Earwigs must be constantly warred against by trapping, and two or three weeks before the blossoms open, aphides should be cleared away by fumigating. This is the piping season: the pipings should be planted in a cool north border, in fine soil of two parts sharp grit, and one part loam and leaf-mould. Succulent varieties winter best when raised from pipings.

August.—As fast as the flowers decay, remove the pots from the sheltered situation they may have been in, and expose the plants fully to the sun, watering only when really necessary, and then not over the leaves. Layering is to be proceeded with as soon as the young shoots become firm: a fine compost of sweet turfy loam, leaf-mould, and clear gritty sand is desirable for layering in. Protect seed-pods from wet.

September.—Prepare soil for potting the layers, and place it under an open shed in the dry. The best compost is formed of sweet mellow loam, with about one-sixth part of leaf-mould, and enough washed sand or pounded crocks to make the mass readily pervious to water. Towards the end of the month make up a bed of vegetable refuse, mixed with stable manure or old tan, the materials to be moderately dried, so as to yield a gentle lasting heat, not over 70° , for starting the layers when removed from the old stool. A frame is to be put on the bed. When the heat becomes steady, commence potting, using three-inch pots for each separate plant, and place them in the frame, giving fresh air constantly, and shading as required.

October.—Complete the potting of layers without delay, using three-inch pots for single plants and four-inch ones for pairs if preferred. Give necessary water, but exclude rain, and ventilate constantly—abundantly also, as soon as the plants have started.

November.—Give air constantly and freely, and allow the plants plenty of room. Stand the pots on a stage, so that excess of water may rapidly drain off. Water only in the morning, and never more than is absolutely requisite. Guard against heavy rains. Excessive wet is the great evil to be avoided at this season. Keep the plants clear of dust and decaying parts. A north aspect is best for the wintering frames. Prepare the compost for the blooming pots, and lay it in an open shed to keep dry. Nothing is better as a staple than good sound turfy loam of mellow texture, the top spit from an upland pasture, stacked in a sharp ridge for at least twelve months before using. Three parts of this loam, and one part of well-decayed cow or horse dung and leaf-mould, will form an excellent mixture. This compost is to be turned over frequently, and a little quicklime may be added to destroy worms.

December.—This is a thorough resting month for the plants. Let them have plenty of pure air. Remove dust and all decaying leaves from the soil and the plants. Water rarely, only when absolutely required, but then give enough to moisten the soil throughout.





PLATE 49.

CRIMSON-FEATHERED COCK'S-COMB.

Celosia (cristata) coccinea.

The plant from which our figure of this very ornamental annual was taken, had been raised from seeds imported from China, as those of a species of *Amaranthus* by Messrs. Veitch and Son, of Exeter and Chelsea. It appears however to be not at all different from the *Celosia coccinea*, which was many years ago introduced to our gardens, but which, like the charming golden-plumed species recently figured, has remained almost unknown to cultivators. Whether it be quite identical with that plant or not, it is certainly a very beautiful and a very useful plant for the decoration of warm conservatories in the autumnal season.

The *Celosia cristata* is a very common species in India and the East, and is found under a great variety of forms, from some of which, and probably from that now before us, the common favourite garden Cock's-comb, with its shortened simple stem and exaggerated inflorescence, has been produced. The taller branching forms of the species, such as that represented in the accompanying Plate, and in Plate 47, have, however, much more elegance of character than the exaggerated monstrosities just referred to.

The present form, as grown by Mr. Veitch, was tall, slender, and free-flowering in habit, having every appearance of being capable of forming bushy specimens similar to the golden-plumed plant, with which its deep Magenta-coloured inflorescence would form a very marked contrast. The plants were

Plate 49.—CELOSIA (*cristata*) COCCINEA: annual; leaves elliptic-lanceolate, repand, acuminate, the upper ones almost linear and entire; inflorescence branched; the axis more or less but moderately fasciated or cock's-combed, wavy and lobed, crimson.

from two to three feet high, the branches more or less freely produced, some of the plants being ramified abundantly; and they were furnished with alternate elliptic lance-shaped leaves, in some cases narrower and more elongated than those shown in our figure, and having an uneven or repand margin. The dilated inflorescence terminated both the main stem and the branches, smaller spikelets again issuing from the axils of the leaves growing upon the latter. The inflorescence was sparingly furnished with perfect seed-bearing flowers towards the base, and was generally narrow and elongated in form, lobed or branched, and more or less dilated at the apex into the Cock's-comb form. The colour was a bright reddish-rose or rosy-crimson, in some plants having a more empurpled, in others a more orange-tinted hue.

The form represented in our illustration is one of those having the dilated form of flower-head. It is not improbable, however, that the more branched of the spicate forms, if carefully selected, might in time yield a plummy crimson variety, analogous to the golden one we already possess; and this is the result at which growers should aim, rather than to obtain large expanded combs, which would take away from the elegant aspect of the plant.

The culture of this Cock's-comb will be exactly that of the golden-plumed variety, already adverted to. As a long-enduring, autumnal-blooming decorative plant, it is equally with that deserving of cultivation.





PLATE 50.

THREE-COLOURED BRANCHING LARKSPUR.

Delphinium (Consolida) tricolor elegans.

“A tall form of Branching Larkspur, producing single or double flowers of richly-varied colours, many of them elegantly striped. These latter, which were very handsome, were of various shades of rosy pink striped with blue. Others were of a rich purple.” Such is the brief description given in the report on Annuals published in the ‘Proceedings of the Royal Horticultural Society,’ of the group of Larkspurs from which the subjects of our illustration were selected. They were contributed by Messrs. Carter and Co., of Holborn, to the experimental collection of annuals grown last year in the Society’s garden at Chiswick, and were grown under the garden name of *Delphinium Consolida tricolor elegans*, the specimens figured being selected from the most decidedly marked plants.

Being of tall growth and branching habit, like the common forms of Branching Larkspur, this striped variety will be a very useful addition to border flowers,—better, indeed, adapted for the border of mixed flowers than for any more formal position. It is free-flowering, and besides this long-enduring on account of its ramose habit. In some plants the sepals are of a very pale rose-pink, dashed here and there with a deeper red, and conspicuously flaked with blue or purple. In others the ground-colour is of a deeper rosy hue, and marked in a similar way, whilst in the small central petals white appears more or less evident. In some the flowers are single, and in others double, both forms being equally handsome.

The variety appears to be sportive, a portion of the plants producing whole-coloured flowers; but there is no doubt that

Plate 50.—DELPHINIUM CONSOLIDA, *var.* TRICOLOR ELEGANS: habit and foliage that of the species; flowers rose-coloured, of various shades, striped with blue and purple, the petals whitish; flowers sometimes double.

by carefully selecting the seed-bearing plants from amongst those in which the striped character is most strongly marked, this desirable feature may be rendered permanent. Even in its present mixed form it is quite worthy of a place amongst the choicer of the annuals which the amateur admits to his select flower-garden. We have lately figured several subjects belonging to this class of plants, from a desire to show that there are subjects of an easily accessible nature worth growing in the mixed flower border,—a feature which it is to be hoped that geometrical beds and masses of colour may never entirely obliterate from garden scenery.

The culture of this Larkspur is of the simplest kind. The seed should be sown in the borders any time during April,—earlier or later according to the season and the weather,—and requires no other care but to be moderately thinned and kept clear of weeds. If preferred, it may be raised with other annuals on a seed-bed, and planted out where required to flower, the transplantation being effected early and in suitable weather. The soil should be light and moderately enriched.



PLATE 51.

NEW VERBENAS.

Verbena (hybrida).

The varieties of *Verbena* are legion, and they are as popular as they are numerous; indeed, there are few more useful decorative subjects for the summer flower-garden. The varieties now cultivated have been obtained chiefly by the intermixture of *V. teucrioides*, *Melindres*, *Tweedieana*, and *incisa*, and of their progeny. The result, securing infinite variation and a great degree of perfection, has been to render cultivators so fastidious, that, of the new varieties plentifully produced every year, comparatively few are thought to surpass those already obtained so as to secure a permanent or distinguished position. Those now represented are some of the best we have seen during the past season.

The variety called *Grand Eastern* was raised by Mr. Cullingford, of Woodbridge, Suffolk. It has been grown and exhibited by Messrs. J. Woods and Son, of that place, whose specimens we have figured; and it has been twice exhibited before the Royal Horticultural Society's Floral Committee, and has received commendation from that body. The plant is of free and vigorous habit and a profuse bloomer, bearing very sweet-scented flowers, in broad flattish trusses, of nine or ten inches

Plate 51.—*VERBENA (hybrida)* :—

Fig. 1. *GRAND EASTERN*: flowers very large, pinkish-rose, deeper towards the eye, which is straw-coloured; sweet-scented.

Fig. 2. *NEMESIS*: flowers well formed, rich rosy-scarlet, with close eye; truss compact.

Fig. 3. *STRIATA PERFECTA*: flowers bluish-lilac, the segments distinctly and evenly margined with white.

Fig. 4. *FAIREST OF THE FAIR*: flowers white, with small ring of purplish-rose around the close eye.

in circumference. The individual blossoms are fully an inch in diameter, the segments half an inch across, and of good outline, and the colour a deep lilac-tinted rosy-pink, darker towards and around the eye, which is straw-coloured. There is no doubt that this is a very fine and remarkable variety; it is certainly the largest-flowered of any we have seen.

The other varieties were raised by Mr. G. Smith, of Hornsey, to whom we are indebted for the opportunity of figuring them. *Nemesis* is a very fine rosy-scarlet variety, remarkable for the compact form of the truss, which is made up of full-sized flowers, firm in substance, with well-rounded segments, and a compact close eye. The plant is free-growing and robust. It is one of the most perfect yet raised as regards the form and texture of the flowers, and was awarded a first-class certificate by the Floral Committee of the Royal Horticultural Society. *Striata perfecta* is an older variety, but one of the best, if not the very best, of the striped-flowered sorts. The flowers are of a light bluish-lilac, with the segments distinctly and evenly bordered with white. *Fairest of the Fair* is a new variety of the present season, and was commended last July as a desirable novelty by the Floral Committee. In this, which is of free habit, the trusses are of average size, and the individual blossoms of good form. The colour is pure white, with a small circlet of bright purplish-rose close around the eye, which is compact and closed. This bright marking and the purity of the other parts of the flower render it a very pleasing variety.

The three novelties now represented having successfully passed the ordeal of a critical examination by the Floral Committee of the Royal Horticultural Society, may be safely regarded as varieties of superior character, and welcome additions to those already distributed.

Verbenas, as is well known, grow and flower freely if planted out in summer in moderately rich well-wrought garden-soil. They are best kept in winter, by propagating a few early plants, and having these well ripened to stand on an airy greenhouse shelf; these being placed, early in spring, in a warm propagating pit, for the purpose of increase by cuttings. Many kinds, and we have no doubt, from its habit, *Grand Eastern* among them, form handsome pot-plants for summer blooming.

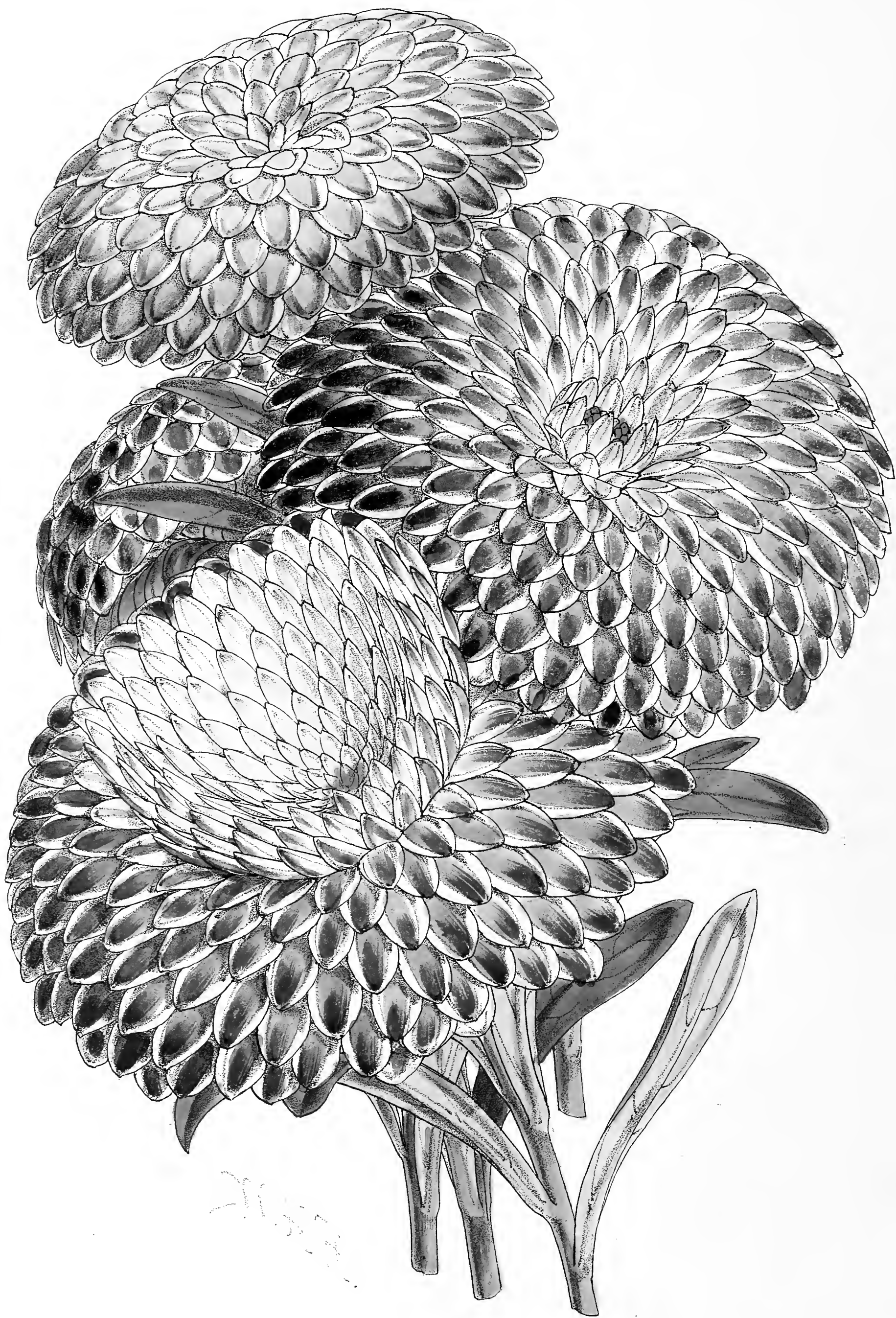


PLATE 52.

STRIPED PÆONY-FLOWERED ASTERS.

Callistephus chinensis pæoniflorus striatus.

The variety of Aster which we here represent is of quite a different habit from that which formed the subject of a former Plate (37), being taller and more spreading, as well as more loosely branched. The flower-heads are equally beautiful, and very much varied in colour, those we have selected having a striped appearance, occasioned by the margins of the florets being white. They were selected from among a large assortment of remarkably fine and very beautifully grown Asters, cultivated last summer in the Cheshunt Nurseries of Mr. William Paul, at Waltham Cross, to whom we are indebted for the samples placed in the hands of our artist; and they are, we learn, the result of very careful selection on the part of Mr. W. Paul, and an amateur friend, through a period of some twenty years. They appear to be almost or quite identical in character with what is called the pæony-flowered Aster—one of the forms which have been gradually perfected in the French gardens, and hence generally known as French or tasseled Asters.

The plants of this variety grow to the average height of a foot, scarcely more, and they produce several branches from near the base, each of which, as well as the central stem, is furnished with a large flower-head similar to those here represented. The large size and compact formation of these flower-heads give them sufficient weight to cause the branches to lean to one side, and this being the case with all the branches alike, there being no stiff erect centre, the entire plant has a moderately

Plate 52.—*CALLISTEPHUS CHINENSIS*, *var. PÆONIFLORUS STRIATUS*: moderately tall, branched, and spreading; flower-heads large, full, with numerous imbricating strap-shaped florets, which are distinctly margined with white.

open or spreading habit, by which means the flowers are as it were distributed, and rendered very effective when grown as a mass. The colours vary through all the shades of pink, rose, lilac, blue, and purple; some being self-coloured, some with the centres white and the margin coloured, and some, as in those we have figured, very elegantly striped. All are, however, beautiful, and there are enough shades and variations of colour to meet every one's taste.

Perhaps of all the annual flowers which are commonly and extensively grown, the Aster is the most gorgeous; it has indeed been wonderfully perfected, and in favourable seasons (which the past was not) adds very greatly to the attractiveness of the flower-garden in the autumnal months. The plants themselves, of the finer strains, are in every way deserving of pot culture; and let us hope that the managers of public exhibitions will not forget to encourage competition in this department of floriculture. They are at least equally worthy with the Balsam of pot culture for conservatory decoration; and thus cultivated, their beauties would not be entirely dependent on the fickle seasons as they are when grown out in beds.

It is as a plant for the flower-garden, however, that the Aster must claim its highest position. There, under liberal culture and in favourable seasons, it is indeed a gorgeous flower.





PLATE 53.

NEW POMPON CHRYSANTHEMUMS.

Pyrethrum sinense, vars.

The race of dwarf Chrysanthemums called Pompons, owes its origin to the variety called the Chusan Daisy, brought not many years since by Mr. Fortune from China. The result of the intermixture of this with the larger-flowered kinds, has further produced what are called hybrid Pompons. These two smaller-blossomed groups have added very much to the interest of this popular autumnal flower; and it is some of the new forms of these races, which made their appearance last autumn, which are represented in the accompanying Plate.

The variety called *Canary Bird*, which was commended by the Floral Committee of the Royal Horticultural Society, is very dwarf and compact in habit, and a free-bloomer, producing flower-heads about an inch and a half in diameter, with smooth closely imbricated florets, of a clear canary-yellow, full to the centre, forming in profile a compact half-globe. *Jessie* is of similar habit, but the flower-heads are rather larger, somewhat flatter, and of a different shade of palish-yellow, flushed towards the outside with a reddish-buff tinge. *Florence* is a very attractive sort, dwarf and free in habit, with the flower-heads of a very pleasing colour, a deep cherry-red, the centre of the florets being paler. These three varieties, which are desirable addi-

Plate 53.—PYRETHRUM SINENSE, varieties:—

Fig. 1. CANARY BIRD (right-hand fig.): pompon; flower-heads small, clear canary-yellow, full double.

JESSIE (left-hand fig.): pompon; flower-heads medium size, yellow, stained with buff towards the edge, of good form.

Fig. 2. FLORENCE: pompon; flower-heads medium size, full, the florets deep cherry-red, with light centre.

Fig. 3. THE LADY MAYOBESS: hybrid pompon; flower-heads pure white.

tions to the Pompon class, were raised and flowered by Mr. Salter, of the Versailles Nursery, Hammersmith, to whom we are indebted for the opportunity of figuring them.

The larger kind, called *The Lady Mayoress*, was communicated by Mr. Bird, of Stoke Newington, by whom it was exhibited. It also is one of the acquisitions of the past year, and was adjudged to be a meritorious novelty at the special exhibitions of this flower which took place last autumn. It is altogether larger than the foregoing sorts, and belongs to the class of hybrid Pompons. The flower-heads are full and well formed, with the florets of a pure white.

Mr. Salter has favoured us with the following notes on some of the better Pompon varieties, which are suitable for pot-culture as specimen plants. The varieties here recommended are all of dwarf branching habit, and produce an abundance of well-formed effectively-coloured flower-heads:—

ANDROMEDA: cream with brown points; very dwarf, free, and of first-rate habit for specimens.

BERROL: pale yellow; early, dwarf, free, and fine.

CHRISTIANA: canary-yellow, with brown points; of beautiful form, and very free.

DURUFLET: rosy-purple, full size; a first-rate flower.

MIRANDA: bright-rose with fringed petals, very double; a beautiful flower, with the odour of violets.

MISS TALFOURD: white; very double, free, and of fine habit.

MISS JULIA: chestnut with golden points; a very fine distinct dwarf variety.

MRS. DIX: blush bordered with rose; of full size, very double, and one of the finest of the Pompons.

RIQUIQUI: violet-plum; extra fine, and of dwarf habit.

ROSE TREVENNA: soft-rose and blush, very double and free; a splendid flower for specimens.

SALAMON: dark rose-carmine; very free, and good either for specimens or the open border.

TROPHÉE: mottled rose; of full size and good habit, and of a fine bright colour.





PLATE 54.

YOUNG'S EVENING PRIMROSE.

Oenothera Youngii.

This variety of Evening Primrose has been recently raised by Mr. Young, of Taunton, and is reported to have been obtained by crossing the plant known in the gardens as *Oenothera riparia* with *Oenothera glauca*, by which means, while the branching and spreading habit of the former was retained, increased size and attractiveness were given to the flowers. Mr. Young regards it as being "well calculated for bedding purposes, continuing a very long time in bloom, and being of very easy cultivation."

It is, without doubt, a free-blooming handsome variety, with the stems much branched and of moderate height, available therefore, with a little aid in pegging down the shoots, as a bedding-plant for the flower-garden. Our figure was made from specimens communicated by Mr. Young, in October last. It has been noticed under the name of *O. ripario-glauca*, which was intended to indicate its reputed parentage, but as the parent species have not been critically examined, it seems preferable to adopt some other distinctive appellation.

The mature plants of this showy hybrid, bear stems about a couple of feet long, and much branched, the habit being apparently spreading or more or less prostrate. The stems are quite round, and are clothed not very thickly, with somewhat

Plate 54.—*OENOTHERA YOUNGII* (hyb. *riparia* \times *glauca*, hort.); perennial, spreading or semi-prostrate, much-branched; stems terete, clothed with incurved hairs; leaves lance-shaped, obscurely toothed or almost entire, narrowed below, scarcely stalked, slightly hairy on the ribs and margin; flowers large, showy, the ovary including its stalk of about equal length, club-shaped, four-cornered, hairy; calyx-tube slender, slightly hairy, as long as the ovary, the segments more or less cohering towards the points; petals broadly obcordate, bright rich yellow.

appressed or incurving hairs. The leaves are from two to two and a half inches long, lance-shaped, very obscurely toothed, sometimes almost entire, narrowed at the base, but scarcely forming a distinct stalk, and having the ribs and the margin slightly hairy. The flowers grow from the axils, and are large and showy, the petals being over an inch in length, of a bright deep yellow. The calyx has a slender slightly hairy tube nearly three-quarters of an inch long, and the four veiny segments of its limb cohere more or less towards the point, the corolla bursting through as it were on one side. The petals are deeply indented at the end, and of a broad inversely heart-shaped figure, forming a slightly concave flower. Compared with the garden *Oenothera riparia*, the plant is much larger in all its parts, and less hairy, though retaining the branching habit, and much of the general character of that species.

The hybrid is a free-growing perennial, increasing readily by means of cuttings, and also by division, and growing freely in ordinary garden soils, which are not poor or parched. It is probably a hardy perennial, but as a decorative plant would be more manageable if sheltered during winter in a cold frame.





PLATE 55.

CARMINE CHINESE PRIMROSE.

Primula prænitens, var. *carminata*.

The double-flowered form of Chinese Primrose represented in one of our early Plates (2), was a great acquisition to this family of plants, which is particularly useful for the winter and spring decoration of greenhouses. We have now to notice the very welcome addition of a new colour, which, while very pleasing and ornamental in itself, will probably become the parent of other choice and interesting forms. The accompanying figure was taken in the garden of the Royal Horticultural Society. We believe the gardening world is indebted for this very pretty novelty to Mr. Benary, of Erfurt, by whom the seeds were sent to Chiswick, under the name of *carminata splendens*. The plant, under the management of Mr. Eyles, proved to be exactly like the vigorous forms of the fringed Chinese Primrose in general character, producing bold trusses of large-sized flowers, prettily fringed around the margin, but having, instead of the rose-coloured tints of the ordinary forms (shown in figure 3, which is introduced for contrast), a very distinct-looking and pleasing salmon-rose, or pale carmine colour. The variety is one which is well worthy of general cultivation as an ornamental plant, possessing the great merits of distinctness and attractiveness.

The other variety represented in our Plate, called *striata*, was grown by Mr. Smith, of Lorrimore Road, Walworth, and is a pretty form, indicative of the sportiveness of Chinese Primroses, and with the preceding giving promise of a series of interesting novelties.

Plate 55.—PRIMULA PRÆNITENS (SINENSIS) varieties:—

Fig. 1. CARMINATA: flowers large, salmon-red, the margins fringed.

Fig. 2. STRIATA: flowers white, sparingly flaked and flecked with rose-purple, the margins unequally toothed.

We may take this opportunity to notice another very distinct form into which this plant has varied under cultivation,—that known under the name of *filicifolia*, or the Fern-leaved Chinese Primrose, of which both rose-coloured and white forms with fringed flowers, are in the possession of Messrs. E. G. Henderson, and Son, of St. John's Wood. This differs from the common forms in the foliage, rather than in the flowers, the leaves being about twice the usual length, oblong, somewhat narrowed towards the base, broader upwards, and divided in a pinnatifid way all along the margin into oblong lobes, which themselves are doubly toothed, as in the common states of the species. These peculiarities of form and cutting produce a leaf which is not inaptly compared with that of a Fern. The variety, like those previously known, is, we learn, reproducible true from its seeds.

There has also recently appeared, in addition to the original double-flowered plain and fringed sorts, and the remarkably fine double kind figured on the occasion just now referred to, a new race of double or semi-double varieties, which it is reported are reproducible from their seeds. If this should prove to be the case, they will be real acquisitions. These latter are known under the names of *rubella plena* and *nivea plena*, and have been exhibited in public by Mr. Bull, nurseryman, of Chelsea.

The culture of all these several varieties is exactly that of the common sort, which has been already described.



PLATE 56.

BEAN-LEAVED ORPINE.

Sedum Fabaria.

The species of *Sedum* represented in the accompanying Plate, is a remarkably fine subject for the decoration of greenhouses and conservatories during the autumnal months. It forms a rival for such a purpose to the well-known *Hydrangea*, and continues for a considerable time in beauty.

The plant is reported to be a native of the mountains of central Europe, growing above the limits of our native *Sedum Telephium*. It is no doubt hardy, though under pot-culture, for decorative purposes, it may be advisable to place it in winter in a frame or orangery, or cold greenhouse, so that it may be kept from any disfigurement by rough weather. The first notice of it, as a garden plant, which we have met with, occurs in the 'Gardeners' Chronicle' for 1857 (p. 660), where it is noticed in the following terms:—"The *Sedum Telephium* is a well-known hardy half-succulent perennial plant, with pale purple flowers, an erect fleshy stem, and oblong, broad, flat, slightly indented leaves. That to which the present name has been given is a far handsomer and larger species, with pale-lilac flowers. Its truss (cyme) in a specimen for which we are indebted to Captain Trevor Clarke, is six inches across. The stem is nearly two feet high, and an inch in diameter at the base, while the leaves, which grow in whorls of three, are three inches long, and an inch and three-quarters wide. The stamens are twice as long as the narrow, very sharp-pointed petals. Whether or

Plate 56.—*SEDUM FABARIA*: suffruticose, smooth; leaves opposite or in whorls of three, fleshy, pale green, large, oval, obsoletely toothed; flowers in a broad much branched cyme, pale-rose; stamens twice as long as the petals.

SEDUM FABARIA, Koch, *Synopsis Floræ Germaniæ*, 284.

SEDUM FABARIUM, Lemaire, *L'Illustration Horticole*, t. 271.

not it is a really distinct species from *S. Telephium* is a botanical question : from a horticultural point of view the two seem extremely different."

To these descriptive particulars we need only add that the plant is one of free habit, and may be formed into a neat specimen adapted for ornamental purposes. The flowers are of a pale-rose or pinkish colour, and, from the large size of the heads in which they are borne, are really very handsome as a mass, though individually small and unattractive. Their general form is that of a five-rayed star, but from their crowded position and the long exserted stamens, this form is not at first sight very obvious. The foliage, which is of a pale glaucous-green colour, is bold and full of character, a good deal resembling the leaflets of the common garden bean.

Our figure was taken from a specimen flowered last season, in the garden of the Royal Horticultural Society, at Chiswick.

The plants grow freely in a light loamy soil, moderately enriched, and may be increased by cuttings of the stems or branches planted in the ordinary way.



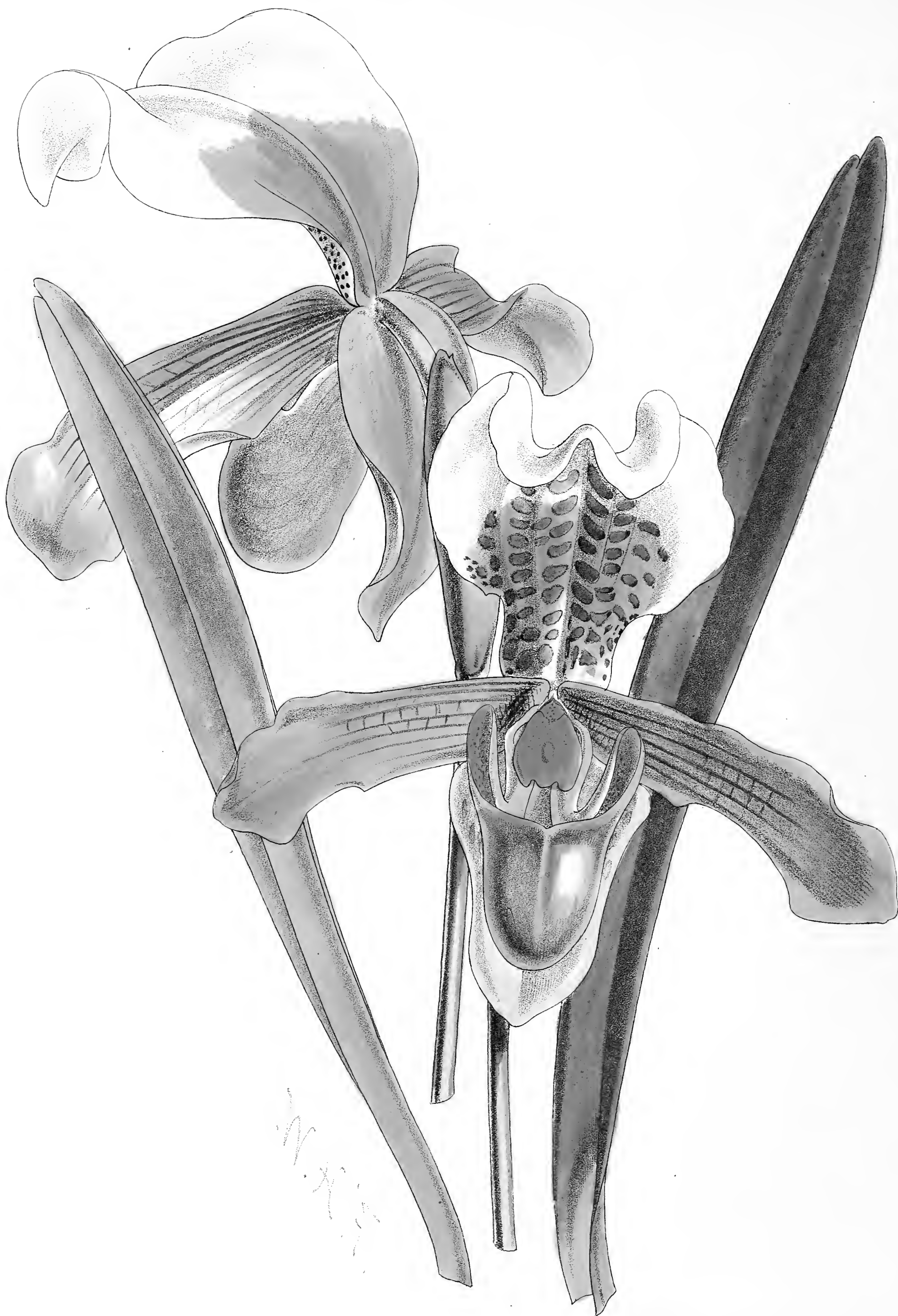


PLATE 57.

MAULE'S LADY'S-SLIPPER.

Cypripedium insigne Maulii.

This very fine and attractive form of Lady's Slipper, was produced at one of the meetings of the Royal Horticultural Society during the latter part of the past year, and was then adjudged a first-class certificate. The larger proportion than usual of white on the broad incurving upper sepal, and the fine purple spotting on this white ground, which were its distinguishing features, gave it a very attractive appearance.

The plant is described to us as obviously different from the usual states of *C. insigne*, in being considerably smaller in stature, and furnished with long but narrow leaves. The leaves are quite green, narrowing at the end, with an unequal-sided notch, and keeled at the back in the usual way. The flower-scape is tall, purplish, downy with short purple hairs, and bearing at top a smooth compressed sheath, from which issues a solitary flower. The ovary is purple and downy like the scape. The sepaline divisions are slightly pubescent and ciliated, the dorsal one large fornicate wavy, strongly keeled or ribbed behind, roundish-oblong, emarginate, about two and a half inches long and nearly as much in breadth, smooth and pale green towards the base, and there marked with brownish-purple distinct wart-like spots; the remaining upper part, for more than half its length, and extending down to the edge towards the base, being white, marked about the centre with a few large spots of a distinct purple colour. The lower or double sepal is ovate,

Plate 57.—CYPRIPEDIUM INSIGNE, var. MAULII: habit and general aspect that of the species, but smaller, with long narrow leaves; flowers large, the dorsal sepal two-thirds white, spotted with purple, the green basal portion spotted as usual with purplish-brown.

greenish, slightly spotted in lines. The petals are narrow-oblong, spathulate, obtuse, wavy on the margin except near the base where they are plane, glossy on both surfaces, but sprinkled with short purple hairs on the outer, and bearded on the inner surface near the base, yellowish-green, veined and somewhat stained with brownish-purple. The lip is narrowish, the margins inflexed at the base, the front saccate, with its edges produced into a pair of erect oblong rounded auricles, greenish-yellow, stained with brownish-purple in front, shining, the inflexed margin yellow, and the inside dotted with purple. The column and the face of the obcordate sterile stamen are clothed with purple hairs, and the central wart is less prominent than in other forms of the species.

It is a really handsome and attractive form of this well-known species, differing most obviously in the broader surface of pure white on the dorsal sepal, and in the purple spotting which occurs on this white ground, quite distinct from the brownish spots which only are met with in the ordinary states of the species. The spots are moreover, more distinct, larger, and less numerous than usual, and fully two-thirds of the surface of the sepal is white.

The plant was exhibited by Messrs. Maule and Sons, of the Stapleton Road Nurseries, Bristol, and our figure was prepared from their specimens. They state that it was imported from Lahore, by way of Bombay, some four years since, and flowered last year for the first time. They also state that the plant thrives in a moderate stove temperature (not over high), planted in turfy peat soil mixed up with potsherds or crocks broken very small. They allow it a liberal supply of water during the growing-time, from March to June, after which less water is given at the root, but a moist atmosphere is maintained through the greater part of the year.





PLATE 58.

EARLY-FLOWERED RHODODENDRON.

Rhododendron præcox.

The novel and interesting garden hybrid, one of the most handsome of hardy shrubs, represented in the annexed Plate, was raised about five years ago, by Mr. Davies, of the Larkfield Nursery, Wavertree, near Liverpool, from *R. atrovirens* fertilized with *R. ciliatum*. It has proved to be perfectly hardy, having been grown by hundreds for the last two winters in the open ground without being in the slightest degree injured by frost. A beautiful little bush, loaded with blossoms, was sent by Mr. Davies for exhibition before the Floral Committee of the Royal Horticultural Society in February last, but was unfortunately not delivered in time for examination. This plant had been potted in November and kept and bloomed in a greenhouse, and formed a charmingly handsome specimen, showing the perfect adaptation of the plant for greenhouse decoration at that early season of the year. Some cut blooms subsequently forwarded, in a rather damaged condition, were commended by the Committee. Having seen the plant as first sent for exhibition, we have no hesitation in assigning it a place in the first rank among early-flowering decorative plants.

As exhibited, the plant formed an erect openly-branched shrub of about two feet high, furnished with slender terete scurfy

Plate 58.—RHODODENDRON PRÆCOX (hybrid between *ciliatum* and *atrovirens*): shrubby, with terete scurfy twigs sparingly leafy at the ends; leaves small, oblong-oval, acute, somewhat lepidote, sparingly ciliated; flowers rosy-lilac, in terminal clusters of 2-3 together, with scurfy pedicels; calyx 5-lobed, with short rounded ciliated lobes; corolla shallow, expanded, almost rotate, 5-lobed, the lobes rounded, overlapping; stamens 10, unequal; style very prominent, with a small capitate obscurely 5-lobed stigma.

twigs, which were sparingly leafy at the end. The leaves are small, $1-1\frac{3}{4}$ inches in length, oblong-oval, acute, dark green, rugosely veined, paler and sparingly lepidote beneath, slightly ciliated, and having short lepidote footstalks. The flowers, which are about two inches in diameter, and grow in small terminal clusters of two to three together, are attached by scurfy pedicels, and are of a light rosy-lilac colour; the calyx divided into five short rounded ciliated lobes; the corolla about two inches in diameter, forming a shallow-expanded almost rotate cup, self-coloured, with five rounded overlapping and slightly undulated regular lobes. They are furnished with ten unequal stamens, which are slightly declinate; and a style which is about twice as long as the stamens, very prominent, and terminating in a capitate obscurely 5-lobed stigma.

The plant is evidently of a very floriferous habit, very small specimens, with three or four shoots producing as many flower-heads. In the open ground, as we learn from Mr. Davies, the flowers expand about the end of March; but the chief value of the variety will probably be found to consist in its capabilities as a forcing plant, or rather, as an early-flowering plant, since its blossoms are developed at an early period with a very slight amount of stimulus; so little indeed is needed, that Mr. Davies states that a succession of flowers might be had all the winter by means of houses of varied temperature. We learn also that not even a green-fly will live upon the plant, on account of a peculiar odour in its foliage which it inherits from its mother.

There is no doubt that this is a true cross-bred plant, the obvious characters and aspect of the two parents being blended in those of the variety. There are some slightly varying forms, as represented in our Plate, where No. 1 is *præcox*, No. 2 is *præcox rubrum*, and No. 3 is *præcox superbum*; but the differences which consist in the size and tints of the flowers are not very marked, at least, in the examples we have seen. The plant requires the treatment of the dwarf small-growing hardy Rhododendrons, and should be grown in peat soil.





PLATE 59.

FLAG OF TRUCE AZALEA.

Azalea indica, var.

The fortunate raiser of this fine and distinct Indian Azalea, the flowers of which, from their colour, are much less effective in our Plate than upon the plant, was Mr. Todman, gardener to R. Hudson, Esq., of Clapham. It was first exhibited in the past spring, at one of the early meetings of the Royal Botanic Society, and when more fully developed, it was produced at a meeting of the Floral Committee of the Royal Horticultural Society. On both these occasions it received an award of the highest class; and when subsequently exhibited at South Kensington, it gave good evidence that the high opinion which had been passed upon it was well merited.

The plant is evidently one of the free-growing and robust forms of Indian Azalea, presenting nothing peculiar in aspect in this respect, nor in regard to its foliage. The flowers are, however, among the largest sized in its family, and of a very pure white. The outer portion consists of the usual bell-shaped corolla, with five smooth rounded spreading lobes; but the centre, instead of being open and funnel-like, is closed up and well filled out by a wavy or undulated group of smaller but broadish rounded petaloid developments occupying the position of the stamens. The general character of this variety is that of another double-flowered white, called Leviathan, introduced about a couple of years since, but it is more evenly and compactly filled out with petals or petaloid filaments, and has consequently a more perfect and finished appearance.

Plate 59.—AZALEA INDICA, *var.* FLAG OF TRUCE: flowers large, double, pure white, the centre well filled out with undulated petals developed in the position of the stamens.

Our figure was made from specimens communicated by Mr. Todman, and Mr. Fitch has very correctly given the appearance they present, though from being shown on white paper, their full beauty on the plant is not brought out.

We have on several former occasions given ample information on the treatment of Azaleas, to which the reader is referred.



PLATE 60.

NEW HYBRID BOUVARDIAS.

Bouvardia (hybrida).

Within the last few years there have appeared in gardens some beautiful novel forms of *Bouvardia*, raised by Mr. Parsons of Brighton, from *B. longiflora* fertilized by *B. leiantha*. These hybrid forms partake of the character of both parents, having the robust habit, the broader leaves, and the larger flower-heads characteristic of *B. leiantha*, combined with the larger individual flowers, having bolder spreading segments, which are peculiar to *B. longiflora*. Their flowers are richly coloured, and produced in large cymose heads not unlike those of an *Ixora*.

Two of these very striking plants are represented in our illustration, from specimens which bloomed with the Messrs. E. G. Henderson and Son, of St. John's Wood, by whom these plants were first made generally known. They have subsequently been cultivated and frequently exhibited in order to show their ornamental qualities, and one of the more recent forms in which they have appeared is that of winter-blooming decorative plants, the plants continuing to blossom long into the winter months if grown in an intermediate house with a genial temperature. The most beautiful blossoms are however those produced towards autumn in the open garden or in a cool airy greenhouse, when their colour is much more brilliant than during the early part of the year.

The *Bouvardia delicata* has the stems and leaves clothed with short stiff reversed hairs. The leaves are ovate acuminate, shortly narrowed at the base, but scarcely stalked; the surface

Plate 60.—BOUVARDIA (*hybrida*):—

Fig. 1. DELICATA: flowers deep salmon-red, with white centre or throat, the tube pale pink, white inside.

Fig. 2. HOGARTH: flowers bright carmine-red, the tube rosy-pink.

downy above and on the ribs beneath. The flowers are in terminal cymose heads, with asperous pedicels, and consist of a long slender tube three-fourths of an inch long, broadest upwards, of a pale-pink colour, and a limb of four ovate convex lobes about a quarter of an inch long, forming a star of from one-half to three-fourths of an inch across; the face of these lobes is of a deep salmony-red, the centre or throat being white. The flower-tube is more slender and clavate in this variety than in *B. Hogarth*, in which the stem is pubescent with reversed hairs, and the leaves ovate, attenuated, scarcely acuminate at the point, downy above as well as on the ribs beneath. In this latter the flowers also come in cymose heads, which are trichotomously divided; there is a calyx of four linear acute erect ciliated lobes; and a corolla with a slender tube of a rosy-pink colour, and a bright carmine-red limb of four ovate spreading lobes.

When vigorously grown, so as to form fine heads of flowers, there are few plants more ornamental in character than these cross-bred Bouvardias. They should be grown in a soil of fresh fibry loam, mixed with small portions of peat and sand. For sheltered beds or for ornamental baskets they are no less adapted than for pot culture; and planted out they acquire a vigour of habit which pot specimens seldom exhibit. These out-door specimens taken up with care and potted in the autumn, will go on blooming in a genial temperature, and are better than younger specimens for planting out the following season. Being of vigorous habit, they are readily made to assume a standard or tree-like form. The flowers are very pretty and useful for bouquets in the autumn and early winter months.





PLATE 61.

GUATEMALAN CATTLEYA.

Cattleya guatemalensis.

The plant which the accompanying figure represents is a very curious one, remarkably distinct in aspect from other species known in cultivation, and though certainly less showy than the fine varieties of *C. labiata*, *C. Mossiæ*, and others, yet not without attractive qualities, in its floriferous habit, and its unusual colour: indeed, it was adjudged to be worthy of a first-class certificate by the Royal Horticultural Society's Floral Committee, when exhibited at one of the meetings of that body in March last.

The specimen to which this award was made, and from which our figure has been prepared, was cultivated and exhibited by Mr. Veitch, of the Royal Exotic Nursery, Chelsea, to whom the plant had been sent from Guatemala by G. U. Skinner, Esq., a gentleman who has contributed much to our knowledge of the Orchids of Central America, and whose name is commemorated in the fine *Cattleya Skinneri*, which was also introduced by him. Our present subject was found by Mr. Skinner, growing in company with *Cattleya Skinneri*, and *Epidendrum aurantiacum* on the stem of the same tree, from which circumstance, and from the singular flush of orange-colour which runs through the whole flower, the opinion has been hazarded that it may be a wild or natural hybrid between those two species. However this may be, it is a plant worth

Plate 61.—CATTLEYA GUATEMALENSIS: stems clavate; leaves oblong, obtuse; flowers 6–8 in a corymbose spike; sepals linear lanceolate; petals lanceolate, slightly wavy; lip about $1\frac{1}{2}$ inch long, shorter than the petals, the base rolled over the short column, the apex spreading, ovate, acute, and somewhat keeled, bright purplish-rose, orange-coloured and spotted towards the base; pollen-masses four.

cultivating for its ornamental qualities, and its unique appearance.

In Mr. Veitch's plant, which formed a considerable-sized mass with numerous heads of flowers, the stems were clavate, furnished at top with two or three thick oblong blunt-ended leaves, of a dark green, from amongst which issued the compressed yellowish-green spathe, out of which the spike of flowers was just elevated. The flowers, from six to eight in number on each stem, were lifted on their long, stalk-like ovaries, into a short, corymbose head. The sepals were linear lanceolate, acute, about an inch and three-fourths in length, and nearly three-eighths in width, of a pale pinkish-buff colour, from the orange stain already alluded to; and the petals were as long, or rather longer, lanceolate, and somewhat wavy at the margin, three-fourths of an inch wide, light rosy-purple, suffused with buff. The lip was rather shorter than the sepals and petals, long, narrow, and acute in its normal position with the basal portion of the sides incurved over the column; its upper half, which was moderately spread out, was somewhat keeled from the partial elevation of its sides, so as to measure about three-eighths in expansion (nearly six-eighths when flattened out), and this part was of a deeper and brighter rosy-purple, which colour was continued on the incurved sides, the lower side at the base being orange-coloured, marked with deep crimson lines, passing into spots. The column was short, white, club-shaped, semiterete and marginate; and the pollen-masses four in number.

Referring to *Cattleya Skinneri*, Mr. Skinner mentions that it inhabits the hot damp coasts of Guatemala, and is always found on high trees, seldom bearing any lichens, so that the moisture from the heavy rains soon passes off; neither does it seek shade, but rather, like *Epidendrum aurantiacum*, exposed places. These two species being the companion plants of that now figured, the circumstances of their growth may furnish a useful hint in respect to its cultivation.



PLATE 62.

SHOWY BOUGAINVILLÆA.

Bougainvillæa speciosa.

Of this, which is perhaps the most superb of hothouse climbing shrubs, Mr. Fitch's admirable figure gives a faithful though limited representation. Of the extreme gorgeousness of the plant itself, as grown by Mr. Daniels, gardener to the Rev. C. E. Ruck Keene, at Swyncombe House, Henley-on-Thames, to whom belongs the merit of having thoroughly conquered the shy-blooming character which the plant has generally assumed, such a fragment can, however, give but a very faint notion, as will be evident when it is stated that Mr. Keene's plant gracefully festoons the end of an span-roofed stove, displaying its exquisitely blended colours in profuse masses over a space of at least three hundred feet square. We are indebted to Mr. Daniels for the specimens we have figured; and others contributed to one of the meetings of the Royal Horticultural Society in April last, obtained a special certificate for the skill displayed in their production. The soft rosy hue of these magnificent masses of inflorescence, varied as it was by the play of light over their surface, was indeed charming. The plant, at that time in full beauty, had been laden with flowers for more than a month, and promised to last much longer.

Plate 62.—BOUGAINVILLÆA SPECIOSA: stems branched, furnished with strong falcately recurved spines set close above the branches, shaggy with soft hairs; leaves ovate or elliptic-ovate, acuminate, undulated, softly hairy, the stalks and main ribs shaggy; ultimate branchlets of the flowering panicles trichotomous, each division terminated by three coloured bracts, forming an involucre; bracts cordate-ovate, slightly hairy, conspicuously reticulated, somewhat exceeding the flowers, of which three are borne within each involucre.

BOUGAINVILLÆA SPECIOSA, *Schnitzlein, Icones Familiarum Naturalium*; *Lindley, Gardeners' Chronicle*, 1861, 359.

BOUGAINVILLÆA SPECTABILIS, *of gardens.*

This *Bougainvillæa* is a shrubby creeper, inhabiting Brazil, and has been long known in cultivation though rarely flowered, and never before in the profusion in which Mr. Daniels has for three successive seasons succeeded in obtaining it. The stems are stout, rounded, extending to a great length, and branching freely; they bear, as well as the main branches, very close above where the branches spring from the axil of a leaf, thick spines which are curved backwards; and the whole of the stem, leaf-stalks, and principal ribs are shaggy, or almost woolly, with a crowd of soft spreading hairs. The leaves are stalked, ovate, more or less tapered towards the stalk, acuminate, wavy, dark green above, paler beneath, pubescent on both surfaces. The inflorescence forms branched panicles from the axils of all the leaves, wreathing the lengthened branches, the ultimate divisions or branchlets of these panicles trichotomous, each division terminating in an involucre of three sessile cordate-ovate bracts, which again enclose three long-tubed yellow flowers, and are somewhat longer than the flowers themselves. The lateral divisions of the trichotomy are jointed, with a pair of setaceous bracteoles at the joint, but the centre one is continuous. They all however bear a triplet of the large cordately-ovate, obtuse, rugosely-veined, coloured floral leaves or bracts, which are traversed by a greenish midrib, to the face of which the pedicels of the flowers are adherent. These bracts, which constitute the beauty of the plant, are of a soft lilac-tinted rose. The flowers are salver-shaped, with a slender greenish tube, and a spreading yellow limb, pinkish outside, and are furnished with eight included stamens, and stalked feathery oblong style.

Mr. Keene's plant was turned out into a small brick pit, three feet square, in a soil of loam and leaf-mould, with broken bricks and charcoal. One side of this brick pit is close to the back of the boiler that heats the house, merely having a few loose bricks laid up against it to prevent scorching. Besides this, a flue runs close under the plant, and the flowering, it appears, took place after the roots had been heated to about 140°. Mr. Daniels considers that the roots had a bottom heat of about 100°, and that herein lies the secret of his success. Very little water is given in winter. The plant which blossomed so gloriously last spring, had been only watered once, and that by mistake, from the preceding August up to March. The plants require ample space for their branches.





PLATE 63.

STANDISH'S HYBRID AZALEA.

Azalea amœna hybrida.

When this plant was exhibited at a meeting of the Royal Horticultural Society, in June, 1860, it was unanimously commended as a fine addition to hardy flowering shrubs, and such indeed it is. It was raised by Mr. Standish, of Bagshot, from *A. indica lateritia* by *A. amœna*, and has most general resemblance to the latter parent, being a dwarf, compact shrub, with small purple flowers. Our figure has been drawn from a specimen communicated by Mr. Standish. One of its chief recommendations, apart from the neatness of its habit, and the beauty of its numerous blossoms, consists in its being perfectly hardy, the specimen above referred to having, at the time it was shown, been taken up in full flower from the open ground, where it had been growing for two years previously. Of a lot of seedlings, turned out in the open ground, Mr. Standish states that this appears to be the most perfectly hardy, not a leaf having been injured.

The parent plant forms a dwarf, compact-growing evergreen bush, with slender twiggy branches, which are clothed with broad, appressed, scale-like hairs. The leaves are elliptic in outline, acute, indistinctly crenated, strigosely hairy, especially at the margin. The flowers appear to be solitary at the ends of short twiggy shoots, but these being developed in a whorl, the flowers appear to form a small open truss, with branched

Plate 63.—AZALEA AMŒNA HYBRIDA: dwarf, compact, evergreen; leaves elliptic, acute, strigosely hairy; flowers apparently solitary at the ends of the short twiggy shoots; funnel-bell-shaped, with flat rounded lobes overlapping at the base; stamens five, protruded; stigma capitate, four-lobed; ovary four-celled.

stalks. The bracts, pedicels, and calyces are hairy. The five calyx-lobes are ovate, acute, ciliated. The corolla is between funnel-shaped and bell-shaped, about an inch and a quarter in length, and the same in expansion; the base of the tube rather compressed, and the lobes of the limb flat, rounded, and overlapping at the base. The colour of the flower is of a lively purplish-tinted rose-pink, rather deeper but not spotted at the base of the upper segments. These flowers, which are borne in profusion, are firm and smooth in substance, and pleasing in form, and hence, though small, being bright-coloured, are rich-looking and effective. The stamens are five in number, longer than the corolla, with rose-coloured filaments, terminated by small light-brown anthers. The style is about as long as the stamens, with a small capitate four-lobed stigma. The ovary is four-celled. It appears to be a summer-blooming plant.

Like other hardy Azaleas, this should be cultivated in beds of peat earth. It will form a very elegant object for the margins of beds of American plants, to which its distinct character will impart a novel feature; and it would be equally suited for grouping in the small beds of a geometrically-designed garden of this class of plants. In short, a shrub of evergreen habit, so dwarf and compact in growth, and so profuse in the development of its blossoms, cannot be other than a valuable object in the hands of the decorative gardener. At present it is very rare, if not unique; but, no doubt, in due time its fortunate raiser and possessor will have increased it sufficiently to be able to distribute it.



PLATE 64.

CELINE FORESTIER ROSE.

Rosa (hybrida).

Though not comparable in its individual blossoms with some of the splendid Tea-scented or other fine varieties of the Rose now met with in gardens, yet on the ground of its decorative capabilities, and consequently its real usefulness, a first-rank position may be claimed for the variety, of which the accompanying figure is a portrait. We are indebted to Mr. Standish, of Bagshot, for the specimens here figured, and for most of the following information respecting the variety.

Celine Forestier is a Noisette Rose, raised many years ago, it appears, at Angers in France, but only quite recently introduced to general cultivation. In its general appearance it much resembles an old variety named *Triomphe de Rennes*, which has been described as one of the best of the yellow Roses; but the present produces much better foliage, and is altogether a freer and more healthy-growing variety. The plant is of vigorous habit, and a rapid grower, making shoots of three feet and upwards in length, these strong shoots being, as in all the Noisette Roses, terminated by a cluster of flowers, which in this case are finely double, cupped, and of a bright yellow. The plants being also clothed with ample and beautiful foliage, have a very showy and ornamental character. The terminal clusters of blossoms, too, after having spent their beauties and their sweets, are succeeded by other flowers from the axils of the leaves below, one, two, or three blossoms being produced from each axil, so that the branches become converted into com-

Plate 64.—ROSA (hybrida) CELINE FORESTIER: flowers cupped, in large terminal clusters, pale bright-yellow; habit vigorous.

plete wreaths of Roses. In this way flowers are produced continuously through the season, till they are stayed by frost.

This will be found to be decidedly the most useful of all the yellow Roses; indeed, for training against a wall, or over trellis-work, or around a pole or pillar, it is unsurpassed. It is moreover the hardiest of all the yellow Roses, which alone is no small recommendation.

The variety, we learn, strikes freely from cuttings; and, like free-growing Roses generally, will grow well in almost any kind of rich soil, provided it is well drained. One of the finest situations that could be selected for its growth, would be a bank backed by sheltering shrubs, which would also serve as a relief to its flowers. Here, associated with some of the free-growing varieties with rich dark-coloured flowers, and all allowed to grow wild with their branches intertwined, the subject of our present illustration would form a brilliant figure in a picture of surpassing beauty.

And thus we bring the first volume of the FLORAL MAGAZINE, and with it our labours in connection therewith, to a close. We cannot, however, for the present, lay aside our pen without tendering our heartiest thanks to the many generous friends who have provided us with subjects to adorn our pages; and to the skilful hand which, while it has adorned, has at the same time also enriched our volume with a series of the most faithful representations of garden flowers which have ever yet appeared.



